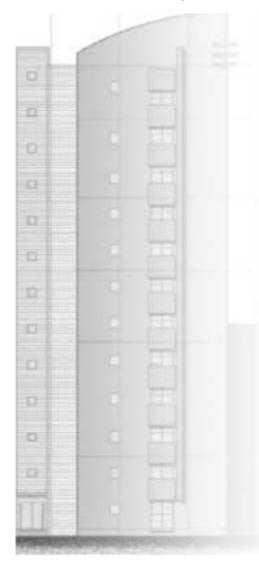


LG

# MULTI V<sub>™</sub> Plus System Air Conditioner SERVICE MANUAL

MODELS: LRUV/LRUN Series LRNV/LRNN Series



### **CAUTION**

- BEFORE SERVICING THE UNIT, READ THE SAFETY PRECAUTIONS IN THIS MANUAL.
- ONLY FOR AUTHORIZED SERVICE PERSONNEL.

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# **Safety Precautions**

To prevent injury to the user or other people and property damage, the following instructions must be followed.

■ Incorrect operation due to ignoring instruction will cause harm or damage. The seriousness is classified by the following indications.

**AWARNING** This symbol indicates the possibility of death or serious injury.

**A**CAUTION

This symbol indicates the possibility of injury or damage to properties only.

■ Meanings of symbols used in this manual are as shown below.

$\bigcirc$	Be sure not to do.
0	Be sure to follow the instruction.



### ■ Installation

Have all electric work done by a licensed electrician according to "Electric Facility **Engineering Standard" and "Interior Wire** Regulations" and the instructions given in this manual and always use a special circuit.

• If the power source capacity is inadequate or electric work is performed improperly, electric shock or fire may result.



### Always ground the product.

There is risk of fire or electric shock.



Ask the dealer or an authorized technician to install the air conditioner.

• Improper installation by the user may result in water leakage, electric shock, or fire.



### Always intstall a dedicated circuit and breaker.

• Improper wiring or installation may cause fire or electric shock.



# For re-installation of the installed product, always contact a dealer or an Authorized Service Center.

• There is risk of fire, electric shock, explosion, or injury.

# Do not install, remove, or re-install the unit by yourself (customer).

There is risk of fire, electric shock, explosion, or injury.



# Do not store or use flammable gas or combustibles near the air conditioner.

• There is risk of fire or failure of product.



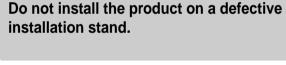
### Use the correctly rated breaker or fuse.

• There is risk of fire or electric shock.



# Prepare for strong wind or earthquake and install the unit at the specified place.

 Improper installation may cause the unit to topple and result in injury.



• It may cause injury, accident, or damage to the product.



# When installing and moving the air conditioner to another site, do not charge it with a different refrigerant from the refrigerant specified on the unit.

 If a different refrigerant or air is mixed with the original refrigerant, the refrigerant cycle may malfunction and the unit may be damaged.



### Do not reconstruct to change the settings of the protection devices.

• If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by LGE are used, fire or explosion may result.

# Ventilate before operating air conditioner when gas leaked out.

It may cause explosion, fire, and burn.



# Securely install the cover of control box and the panel.

• If the cover and panel are not installed securely, dust or water may enter the outdoor unit and fire or electric shock may result.

# If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit when the refrigerant leaks.

• Consult the dealer regarding the appropriate measures to prevent the safety limit from being exceeded. Should the refrigerant leak and cause the safety limit to be exceeded, harzards due to lack of oxygen in the room could result.

### ■ Operation -

# Do not damage or use an unspecified power cord.

 There is risk of fire, electric shock, explosion, or injury.



### Use a dedicated outlet for this appliance.

• There is risk of fire or electrical shock.



# Be cautious that water could not enter the product.

 There is risk of fire, electric shock, or product damage.



# Do not touch the power switch with wet hands.

 There is risk of fire, electric shock, explosion, or injury.



When the product is soaked (flooded or submerged), contact an Authorized Service Center.

• There is risk of fire or electric shock.



Take care to ensure that nobody could step on or fall onto the outdoor unit.

• This could result in personal injury and product damage.



• It may cause injury.



Do not open the inlet grill of the product during operation. (Do not touch the electrostatic filter, if the unit is so equipped.)

 There is risk of physical injury, electric shock, or product failure.



### ■ Installation

Always check for gas (refrigerant) leakage after installation or repair of product.

 Low refrigerant levels may cause failure of product. Do not install the product where the noise or hot air from the outdoor unit could damage the neighborhoods.

It may cause a problem for your neighbors.



Keep level even when installing the product.

• To avoid vibration or water leakage.

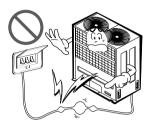


Do not install the unit where combustible gas may leak.

 If the gas leaks and accumulates around the unit, an explosion may result.

Use power cables of sufficient current carrying capacity and rating.

 Cables that are too small may leak, generate heat, and cause a fire.



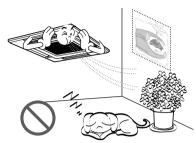
Keep the unit away from children. The heat exchanger is very sharp.

 It can cause the injury, such as cutting the finger. Also the damaged fin may result in degradation of capacity.



Do not use the product for special purposes, such as preserving foods, works of art, etc. It is a consumer air conditioner, not a precision refrigeration system.

There is risk of damage or loss of property.



When installting the unit in a hospital, communication station, or similar place, provide sufficient protection against noise.

• The inverter equipment, private power generator, high-frequency medical equipment, or radio communication equipment may cause the air conditioner to operate erroneously, or fail to operate. On the other hand, the air conditioner may affect such equipment by creating noise that disturbs medical treatment or image broadcasting.



### Do not install the product where it is exposed to sea wind (salt spray) directly.

• It may cause corrosion on the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient operation.

### ■ Operation -

# Do not use the air conditioner in special environments.

 Oil, steam, sulfuric smoke, etc. can significantly reduce the performance of the air conditioner or damage its parts.



# Make the connections securely so that the outside force of the cablemay not be applied to the terminals.

Inadequate connection and fastening may generate heat and cause a fire.



### Do not block the inlet or outlet.

• It may cause failure of appliance or accident.



### Be sure the installation area does not deteriorate with age.

 If the base collapses, the air conditioner could fall with it, causing property damage, product failure, or personal injury.



# Install and insulate the drain hose to ensure that water is drained away properly based on the installation manual.

A bad connection may cause water leakage.



### Be very careful about product transportation.

- Only one person should not carry the product if it weighs more than 20 kg.
- Some products use PP bands for packaging. Do not use any PP bands for a means of transportation. It is dangerous.
- Do not touch the heat exchanger fins. Doing so may cut your fingers.
- When transporting the Outdoor Unit, suspending it at the specified positions on the unit base. Also support the Outdoor Unit at four points so that it cannot slip sideways.



### Safely dispose of the packing materials.

- · Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.
- Tear apart and throw away plastic packaging bags so that children may not play with them. If children play with a plastic bag which was not torn apart, they face the risk of suffocation.

### Starting operation immediately after turning on the main power switch can result in severe damage to internal parts. Keep the power switch turned on during the operational season.

Turn on the power at least 12 hours before starting operation.(In case of outdoor

temperature 5°C below)



### Do not touch any of the refrigerant piping during and after operation.

It can cause a burn or frostbite.



### Do not directly turn off the main power switch after stopping operation.

 Wait at least 5 minutes before turning off the main power switch. Otherwise it may result in water leakage or other problems.

### Do not operate the air conditioner with the panels or guards removed.

• Rotating, hot, or high-voltage parts can cause iniuries.

Auto-addressing should be done in condition of connecting the power of all indoor and outdoour units. Auto-addressing should also be done in case of changing the Indoor Unit board(PCB).



### Use a firm stool or ladder when cleaning or maintaining the air conditioner.

Be careful and avoid personal injury.



### Do not insert hands or other objects through the air inlet or outlet while the air conditioner is plugged in.

 There are sharp and moving parts that could cause personal injury.



# Part 1 General Information

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# 1. Model Names

## 1.1 Indoor Unit

Cata	~~	Chassia					Capac	ity(Btu/	h(kW))				
Category		Chassis Name	7k (2.1)	9k (2.6)	12k (3.5)	18k (5.3)	21K (6.2)	24k (7.0)	28k (8.2)	36k (10.6)	38k (11.1)	42k (12.3)	4 8 k (14.1)
Wall Mounted		SR	076SRA0 072SRA0	096SRA0 092SRA0	126SRA0 122SRA0								
(General)		ST				186STA0 182STA0							
	Deluxe	SU	076SU*0 072SU*0	096SU*0 092SU*0	126SU*0 122SU*0	186S3*0 122S3*0		246\$3*0 242\$3*0					
ART COOL	ART COOL	SP		096SP*0 092SP*0	126SP*0 122SP*0								
ART COOL	ART COOL Wide	SV			126SV*0 122SV*0	186SV*0 182SV*0							
	1 Way	TC	076TCA0 072TCA0	096TCA0 092TCA0	126TCA0 122TCA0								
Ceiling Cassette	4 Way	TE			126TEA0 122TEA0	186TEA0 182TEA0							
	1 Way	TD					216TDA0 212TDA0	246TDA0 242TDA0	286TDA0 282TDA0	366TDA0 362TDA0	386TDA0 382TDA0	426TDA0 422TDA0	486TDA 482TDA0
		ВН				186BHA0 182BHA0	216BHA0 212BHA0	246BHA0 242BHA0					
Ceiling	High Static	BG							286BGA0 282BGA0	366BGA0 362BGA0	386BGA0 382BGA0	426BGA0 422BGA0	
Concealed Duct		BE											486BEA0 482BEA0
	Low Static	BT	076BTG0 072BTG0	096BTG0 092BTG0	126BTG0 122BTG0								
Ceiling & Floor	Convertible	VB				186VBA0 182VBA0		246VBA0 242VBA0					

Cooling Only	LRNV
Heat Pump	LRNN
1Ø, 220 ~ 240V, 50Hz	6
1Ø, 220V, 60Hz	2

\*These are model names of the basic function

# 1.2 Outdoor Unit

Power Supply	5HP	6HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP	
3Ø, 380 ~ 415V, 50Hz	508T0	608T0	808T0	1008T0	1208T0	1408T0	1608TS0	1808TS0	2008TS0	
3Ø, 380V, 60Hz	509T0	609T0	809T0	1009T0	1209T0	1409T0	1609TS0	1809TS0	2009TS0	
3Ø, 220V, 60Hz			80BT0	100BT0	120BT0					
Power Supply	24HP	26HP	28HP	30HP	32HP	34HP	36HP	38HP	40HP	
3Ø, 380 ~ 415V, 50Hz	2408TS0	2608TR0	2808TR0	3008TR0	3208TR0	3408TR0	3608TR0	3808TR0	4008TR0	
3Ø. 380V. 60Hz	2409TS0	2609TS0	2809TR0	3009TR0	3209TR0	3409TR0	3609TR0	3809TR0	4009TR0	

Cooling Only	LRUV
Heat Pump	LRUN

# 2. External Appearance

### 2.1 Indoor Unit

### **Ceiling Cassette- 1Way**

LRNV076TCA0 / LRNN076TCA0 / LRNV072TCA0 / LRNN072TCA0
LRNV096TCA0 / LRNN096TCA0 / LRNV092TCA0 / LRNN092TCA0
LRNV126TCA0 / LRNV126TCA0 / LRNV122TCA0 / LRNV122TCA0



### **Ceiling Cassette- 4Way**

LRNV126TEA0 / LRNN126TEA0 / LRNV122TEA0 / LRNN122TEA0 LRNV186TEA0 / LRNN186TEA0 / LRNN186TEA0 / LRNN182TEA0 / LRNN218TDA0 / LRNV212TDA0 / LRNN212TDA0 LRNV246TDA0 / LRNN246TDA0 / LRNN242TDA0 / LRNN242TDA0 LRNN286TDA0 / LRNN286TDA0 / LRNN286TDA0 / LRNN286TDA0 / LRNN366TDA0 / LRNN366T



### **Ceiling Concealed Duct - High Static**

LRNV186BHA0 / LRNN186BHA0 / LRNV182BHA0 / LRNN182BHA0 LRNV216BHA0 / LRNV216BHA0 / LRNV212BHA0 / LRNV212BHA0 LRNV246BHA0 / LRNV242BHA0 / LRNV242BHA0 LRNV246BHA0 / LRNV242BHA0 / LRNV242BHA0 LRNV286BGA0 / LRNV286BGA0 / LRNV386BGA0 / LRNV366BGA0 / LRNV366BGA0 / LRNV362BGA0 LRNV366BGA0 / LRNV366BGA0 / LRNV362BGA0 LRNV366BGA0 / LRNV362BGA0 LRNV362BGA0 LRNV36BGA0 / LRNV362BGA0 LRNV382BGA0 LRNV36BGA0 / LRNV36BGA0



### **Ceiling Concealed Duct - Low Static**

LRNV076BTG0 / LRNN076BTG0 / LRNV072BTG0 / LRNN072BTG0 LRNV096BTG0 / LRNN096BTG0 / LRNV092BTG0 / LRNN092BTG0 LRNV126BTG0 / LRNN126BTG0 / LRNN126BTG0 / LRNN122BTG0



### **Wall Mounted**

LRNV076SRA0 / LRNN076SRA0 / LRNV072SRA0 / LRNN072SRA0 LRNV096SRA0 / LRNN096SRA0 / LRNV092SRA0 / LRNN092SRA0 LRNV126SRA0 / LRNN126SRA0 / LRNN122SRA0 LRNN126SRA0 / LRNN186STA0 / LRNN186STA0 / LRNN182STA0 LRNN182STA0



### **ART COOL Deluxe**

LRNV076SU\*0 / LRNN076SU\*0 / LRNV072SU\*0 / LRNN072SU\*0 LRNV096SU\*0 / LRNN096SU\*0 / LRNV092SU\*0 / LRNN092SU\*0 LRNV126SU\*0 / LRNN126SU\*0 / LRNV12SU\*0 / LRNN12SU\*0 LRNV186S3\*0 / LRNV186S3\*0 / LRNV182S3\*0 / LRNV186S3\*0 / LRNV246S3\*0 / LRNV246S3\*0 / LRNV24S3\*0 / LRNV24S3

\* B : Blue M : Metal D : Wood R : Mirror C : Cherry W : White



### **ART COOL**

LRNV096SP\*0/LRNN096SP\*0/LRNV092SP\*0/LRNN092SP\*0 LRNV126SP\*0/LRNN126SP\*0/LRNV122SP\*0/LRNN122SP\*0

\* B : Blue M : Metal D : Wood



### **ART COOL Wide**

LRNV126SV\*0/LRNN126SV\*0/LRNV122SV\*0/LRNN122SV\*0 LRNV186SV\*0/LRNN186SV\*0/LRNV182SV\*0/LRNN182SV\*0

\* B : Blue M : Metal D : Wood



### **Ceiling & Floor - Convertible**

LRNV186VBA0 / LRNN186VBA0 / LRNV182VBA0 / LRNN182VBA0 LRNV246VBA0 / LRNN246VBA0 / LRNV242VBA0 / LRNN242VBA0



\* These are model names of the basic function.

### 2.2 Outdoor Unit

LRUV508T0 / LRUN508T0 / LRUV509T0 / LRUN509T0 LRUV608T0 / LRUN608T0 / LRUV609T0 / LRUN609T0 LRUV808T0 / LRUV809T0



5, 6, 8HP

LRUN808T0 / LRUN809T0 / LRUV80BT0 / LRUN80BT0

LRUV1008T0 / LRUN1008T0 / LRUV1009T0 / LRUN1009T0 / LRUV100BT0 / LRUN100BT0 LRUV1208T0 / LRUN1208T0 / LRUN1209T0 / LRUN1209T0 / LRUV120BT0 / LRUN120BT0 LRUV1408T0 / LRUN1408T0 / LRUN1409T0 / LRUN1409T0



8, 10, 12, 14HP

LRUV1608TS0 / LRUN1608TS0 / LRUV1609TS0 / LRUN1609TS0
LRUV1808TS0 / LRUN1808TS0 / LRUV1809TS0 / LRUN1809TS0
LRUV2008TS0 / LRUN2008TS0 / LRUV2009TS0 / LRUN2009TS0
LRUV2208TS0 / LRUN2208TS0 / LRUV2209TS0 / LRUN2209TS0
LRUV2408TS0 / LRUN2408TS0 / LRUV2409TS0 / LRUN2409TS0
LRUV2609TS0 / LRUN2609TS0



16, 18, 20, 22, 24, 26HP

### LRUV2608TR0 / LRUN2608TR0

LRUV2808TR0 / LRUN2808TR0 / LRUV2809TR0 / LRUN2809TR0
LRUV3008TR0 / LRUN3008TR0 / LRUV3009TR0 / LRUN3009TR0
LRUV3208TR0 / LRUN3208TR0 / LRUV3209TR0 / LRUN3209TR0
LRUV3408TR0 / LRUN3408TR0 / LRUV3409TR0 / LRUN3409TR0
LRUV3608TR0 / LRUN3608TR0 / LRUV3609TR0 / LRUN3609TR0
LRUV3808TR0 / LRUN3808TR0 / LRUV3809TR0 / LRUN3809TR0
LRUV4008TR0 / LRUN4008TR0 / LRUV4009TR0 / LRUN4009TR0



26, 28, 30, 32, 34, 36, 38, 40HP

# 3. Combination of Outdoor Units

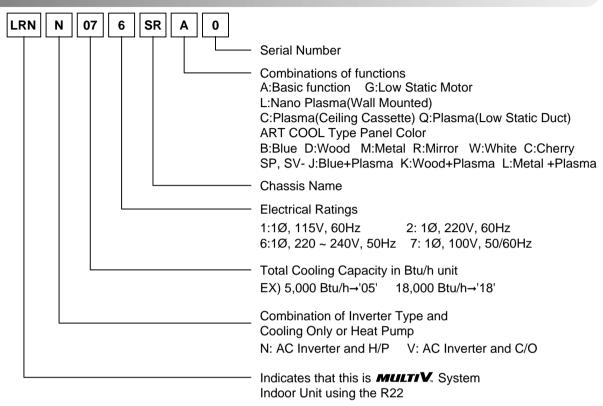
System Capacity	Number of Units				Module			
	50Hz(60Hz)	5	6	8	10	12	14	16
5HP	1(1)	1						
6HP	1(1)		1					
8HP	1(1)			1				
10HP	1(1)				1			
12HP	1(1)					1		
14HP	1(1)						1	
16HP	2(2)			2				
18HP	2(2)			1	1			
20HP	2(2)				2			
22HP	2(2)				1	1		
24HP	2(2)					2		
26HP	3(2)			2	1	*(1)	*(1)	
28HP	3(3)			1	2			
30HP	3(3)				3			
32HP	3(3)				2	1		
34HP	3(3)				2		1	
36HP	3(3)					3		
38HP	3(3)					2	1	
40HP	3(3)					2		1

<sup>■</sup> Up to a maximum 40HP are realized by combining 8, 10, 12, 14 and 16HP

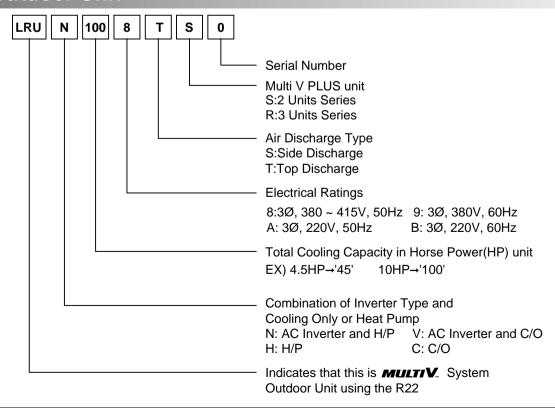
<sup>■ \* :3</sup>Ø, 380V, 60Hz

## 4. Nomenclature

### 4.1 Indoor Unit



### 4.2 Outdoor Unit



# 5. Outdoor Units Information



CAUTION: A ratio of the connectable Indoor Units with the Outdoor Unit: within 50 ~ 130%

# Power Supply: Outdoor Unit (3Ø, 380 ~ 415V, 50Hz)

### **■** Cooling Only

Unit		1 Outo	door Unit(Hal	f size)	1 Outdoor Unit			
System(HP)		5	6	8	10	12	14	
Model		LRUV508T0	LRUV608T0	LRUV808T0	LRUV1008T0	LRUV1208T0	LRUV1408T0	
Product Charge	kg	5	5	6	10	10	10	
CF(Correction Factor)	kg	0	0	0	-1	-1	-1	
Max. Connectable No.	of Indoor Units	6	8	13	16	16	16	
Net Weight	kg(lbs)	150(330.7)	150(330.7)	150(330.7)	300(661.4)	300(661.4)	300(661.4)	
Dimensions (W x H x D)	mm(inch)	806 x 1555 x 730	806 x 1555 x 730	806 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730	
Difficisions (W X 11 X D)	min(inch)	(31.7 x 61.2 x 28.7)	(31.7 x 61.2 x 28.7)	(31.7 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	
Pipe Connections	Liquid Pipes(mm(inch))	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	
i ipe comilections	Gas Pipes(mm(inch))	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )				

Unit	2 Outdoor Units						3 Outdoor Units
System(HP)		16	18	20	22	24	26
Model		LRUV1608TS0	LRUV1808TS0	LRUV2008TS0	LRUV2208TS0	LRUV2408TS0	LRUV2608TR0
		LRUV808TS0	LRUV1008TS0	LRUV1008TS0	LRUV1208TS0	LRUV1208TS0	LRUV1008TR0
		LRUC808TS0	LRUC808TS0	LRUC1008TS0	LRUC1008TS0	LRUC1208TS0	LRUC808TR0
							LRUC808TR0
Product Charge	kg	10 x 2	10 x 3				
CF(Correction Factor)	kg	-2	-2	-2	-2	-2	0
Max. Connectable No.	of Indoor Units	20	20	20	22	24	26
Net Weight	kg(lbs)	300(661.4) x 2	300(661.4) x 3				
Dimensions (W x H x D)	mm(inch)	(1280 x 1555 x 730) x 2	(1280 x 1555 x 730) x 3				
Dimensions (W X 11 X D)	mini(inon)	((50.4 x 61.2 x 28.7) x 2)	((50.4 x 61.2 x 28.7) x 3)				
Pipe Connections	Liquid Pipes(mm(inch))	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø22.2(7/8)
i ipo dominections	Gas Pipes(mm(inch))	Ø38.1(1 <sup>1</sup> / <sub>2</sub> )	Ø44.5(1 <sup>3</sup> / <sub>4</sub> )				

Unit		3 Outdoor Units									
System(HP)		28	30	32	34	36	38	40			
Model		LRUV2808TR0	LRUV3008TR0	LRUV3208TR0	LRUV3408TR0	LRUV3608TR0	LRUV3808TR0	LRUV4008TR0			
		LRUV808TR0	LRUV1008TR0	LRUV1208TR0	LRUV1408TR0	LRUV1208TR0	LRUV1408TR0	LRUV1608TR0			
		LRUC1008TR0	LRUC1008TR0	LRUC1008TR0	LRUC1008TR0	LRUC1208TR0	LRUC1208TR0	LRUC1208TR0			
		LRUC1008TR0	LRUC1008TR0	LRUC1008TR0	LRUC1008TR0	LRUC1208TR0	LRUC1208TR0	LRUC1208TR0			
Product Charge	kg	10 x 3									
CF(Correction Factor)	kg	0	0	0	1	1	2	2			
Max. Connectable No.	of Indoor Units	32	32	32	34	36	38	40			
Net Weight	kg(lbs)	300(661.4) x 3									
Dimensions (W x H x D)	mm(inch)	(1280 x 1555 x 730) x 3									
Difficusions (W X 11 X D)	mm(mon)	((50.4 x 61.2 x 28.7) x 3)									
Pipe Connections	Liquid Pipes(mm(inch))	Ø22.2(7/8)									
ripe Connections	Gas Pipes(mm(inch))	Ø44.5(1 <sup>3</sup> / <sub>4</sub> )									

### ■ Heat Pump

Unit		1 Outdoor U	nit(Half size)	1 Outdoor Unit					
System(HP)		5	6	8	10	12	14		
Model		LRUN508T0	LRUN608T0	LRUN808T0	LRUN1008T0	LRUN1208T0	LRUN1408T0		
Product Charge	kg	5	5	10	10	10	10		
CF(Correction Factor)	kg	0	0	-1	-1	-1	-1		
Max. Connectable No.	of Indoor Units	6	8	13	16	16	16		
Net Weight	kg(lbs)	150(330.7)	150(330.7)	300(661.4)	300(661.4)	300(661.4)	300(661.4)		
Dimensions (W x H x D)	mm(inch)	806 x 1555 x 730	806 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730		
Dimensions (W X 11 X D)	min(inch)	(31.7 x 61.2 x 28.7)	(31.7 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)		
Pipe Connections	Liquid Pipes(mm(inch))	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)		
ripe Connections	Gas Pipes(mm(inch))	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )					

Unit			2	Outdoor Uni	ts		3 Outdoor Units
System(HP)		16	18	20	22	24	26
Model		LRUN1608TS0	LRUN1808TS0	LRUN2008TS0	LRUN2208TS0	LRUN2408TS0	LRUN2608TR0
		LRUN808TS0	LRUN1008TS0	LRUN1008TS0	LRUN1208TS0	LRUN1208TS0	LRUN1008TR0
		LRUH808TS0	LRUH808TS0	LRUH1008TS0	LRUH1008TS0	LRUH1208TS0	LRUH808TR0
							LRUH808TR0
Product Charge	kg	10 x 2	10 x 3				
CF(Correction Factor)	kg	-2	-2	-2	-2	-2	0
Max. Connectable No.	of Indoor Units	20	20	20	22	24	26
Net Weight	kg(lbs)	300(661.4) x 2	300(661.4) x 3				
Dimensions (W x H x D)	mm(inch)	(1280 x 1555 x 730) x 2	(1280 x 1555 x 730) x 3				
	Tillin(interi)	((50.4 x 61.2 x 28.7) x 2)	((50.4 x 61.2 x 28.7) x 3)				
Pipe Connections	Liquid Pipes(mm(inch))	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø22.2(7/8)
	Gas Pipes(mm(inch))	Ø38.1(1 <sup>1</sup> / <sub>2</sub> )	Ø44.5(1 <sup>3</sup> / <sub>4</sub> )				

Unit 3 Outdoor Units								
System(HP)		28	30	32	34	36	38	40
Model		LRUN2808TR0	LRUN3008TR0	LRUN3208TR0	LRUN3408TR0	LRUN3608TR0	LRUN3808TR0	LRUN4008TR0
		LRUN808TR0	LRUN1008TR0	LRUN1208TR0	LRUN1408TR0	LRUN1208TR0	LRUN1408TR0	LRUN1608TR0
		LRUH1008TR0	LRUH1008TR0	LRUH1008TR0	LRUH1008TR0	LRUH1208TR0	LRUH1208TR0	LRUH1208TR0
		LRUH1008TR0	LRUH1008TR0	LRUH1008TR0	LRUH1008TR0	LRUH1208TR0	LRUH1208TR0	LRUH1208TR0
Product Charge	kg	10 x 3						
CF(Correction Factor)	kg	0	0	0	1	1	2	2
Max. Connectable No.	of Indoor Units	32	32	32	34	36	38	40
Net Weight	kg(lbs)	300(661.4) x 3						
Dimensions (W x H x D)	mm(inch)	(1280 x 1555 x 730) x 3						
Difficiolofis (W X 11 X D)	i i i i i i i i i i i i i i i i i i i	((50.4 x 61.2 x 28.7) x 3)						
Pipe Connections	Liquid Pipes(mm(inch))	Ø22.2(7/8)						
Pipe Connections	Gas Pipes(mm(inch))	Ø44.5(1 <sup>3</sup> / <sub>4</sub> )						

# Power Supply: Outdoor Unit (3Ø, 380V, 60Hz)

### ■ Cooling Only

Unit		1 Outo	door Unit(Hal	f size)	1 Outdoor Unit			
System(HP)		5	6	8	10	12	14	
Model		LRUV509T0	LRUV609T0	LRUV809T0	LRUV1009T0	LRUV1209T0	LRUV1409T0	
Product Charge	kg	5	5	6	10	10	10	
CF(Correction Factor)	kg	0	0	0	-1	-1	-1	
Max. Connectable No.	of Indoor Units	6	8	13	16	16	16	
Net Weight	kg(lbs)	150(330.7)	150(330.7)	150(330.7)	300(661.4)	300(661.4)	300(661.4)	
Dimensions (W x H x D)	mm(inch)	806 x 1555 x 730	806 x 1555 x 730	806 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730	
Dilliciololo (W X I I X D)	mini(inon)	(31.7 x 61.2 x 28.7)	(31.7 x 61.2 x 28.7)	(31.7 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	
Pipe Connections	Liquid Pipes(mm(inch))	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	
	Gas Pipes(mm(inch))	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )				

Unit				2 Outdo	or Units		
System(HP)		16	18	20	22	24	26
Model		LRUV1609TS0	LRUV1809TS0	LRUV2009TS0	LRUV2209TS0	LRUV2409TS0	LRUV2609TS0
		LRUV809TS0	LRUV1009TS0	LRUV1009TS0	LRUV1209TS0	LRUV1209TS0	LRUV1409TS0
		LRUC809TS0	LRUC809TS0	LRUC1009TS0	LRUC1009TS0	LRUC1209TS0	LRUC1209TS0
Product Charge	kg	10 x 2					
CF(Correction Factor)	CF(Correction Factor) kg		-2	-2	-2	-2	-1
Max. Connectable No.	of Indoor Units	20	20	20	22	24	26
Net Weight	kg(lbs)	300(661.4) x 2					
Dimensions (W x H x D)	mm(inch)	(1280 x 1555 x 730) x 2	(1280 x 1555 x 730) x 2)				
Difficusions (W X 11 X D)	mm(mon)	((50.4 x 61.2 x 28.7) x 2)					
Pipe Connections	Liquid Pipes(mm(inch))	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
Tipe Connections	Gas Pipes(mm(inch))	Ø38.1(1 <sup>1</sup> / <sub>2</sub> )					

Unit				3 (	Outdoor Un	its		
System(HP)		28	30	32	34	36	38	40
Model		LRUV2809TR0	LRUV3009TR0	LRUV3209TR0	LRUV3409TR0	LRUV3609TR0	LRUV3809TR0	LRUV4008TR0
		LRUV809TR0	LRUV1009TR0	LRUV1209TR0	LRUV1409TR0	LRUV1209TR0	LRUV1409TR0	LRUV1609TR0
		LRUC1009TR0	LRUC1009TR0	LRUC1009TR0	LRUC1009TR0	LRUC1209TR0	LRUC1209TR0	LRUC1209TR0
		LRUC1009TR0	LRUC1009TR0	LRUC1009TR0	LRUC1009TR0	LRUC1209TR0	LRUC1209TR0	LRUC1209TR0
Product Charge	kg	10 x 3						
CF(Correction Factor)	kg	0	0	0	1	1	2	2
Max. Connectable No.	of Indoor Units	32	32	32	34	36	38	40
Net Weight	kg(lbs)	300(661.4) x 3						
Dimensions (W x H x D)	mm(inch)	(1280 x 1555 x 730) x 3						
Dillicisions (W X 11 X D)	mini(inch)	((50.4 x 61.2 x 28.7) x 3)						
Pipe Connections	Liquid Pipes(mm(inch))	Ø22.2(7/8)						
ripe Connections	Gas Pipes(mm(inch))	Ø44.5(1 <sup>3</sup> / <sub>4</sub> )						

### **■** Heat Pump

Unit		1 Outdoor Unit(Half size)		1 Outdoor Unit				
System(HP)		5	6	8	10	12	14	
Model		LRUN509T0	LRUN609T0	LRUN809T0	LRUN1009T0	LRUN1209T0	LRUN1409T0	
Product Charge	kg	5	5	10	10	10	10	
CF(Correction Factor)	kg	0	0	-1	-1	-1	-1	
Max. Connectable No.	of Indoor Units	6	8	13	16	16	16	
Net Weight	kg(lbs)	150(330.7)	150(330.7)	300(661.4)	300(661.4)	300(661.4)	300(661.4)	
Dimensions (W x H x D)	mm(inch)	806 x 1555 x 730	806 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730	
Dillicipions (M X L X D)	Hilli(IIIGH)	(31.7 x 61.2 x 28.7)	(31.7 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7	
Pipe Connections	Liquid Pipes(mm(inch))	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	
	Gas Pipes(mm(inch))	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )				

Unit				2 Outdo	or Units		
System(HP)		16	18	20	22	24	26
Model		LRUN1609TS0	LRUN1809TS0	LRUN2009TS0	LRUN2209TS0	LRUN2409TS0	LRUN2609TS0
		LRUN809TS0	LRUN1009TS0	LRUN1009TS0	LRUN1209TS0	LRUN1209TS0	LRUN1409TS0
		LRUH809TS0	LRUH809TS0	LRUH1009TS0	LRUH1009TS0	LRUH1209TS0	LRUH1209TS0
Product Charge	kg	10 x 2					
CF(Correction Factor)	(Correction Factor) kg		-2	-2	-2	-2	-1
Max. Connectable No.	of Indoor Units	20	20	20	22	24	26
Net Weight	kg(lbs)	300(661.4) x 2					
Dimensions (W x H x D)	mm(inch)	(1280 x 1555 x 730) x 2	(1280 x 1555 x 730) x 2	(1280 x 1555 x 730) x 2	(1280 x 1555 x 730)) x 2	(1280 x 1555 x 730) x 2	(1280 x 1555 x 730) x 2
Difficusions (W X 11 X D)	i i i i i i i i i i i i i i i i i i i	((50.4 x 61.2 x 28.7) x 2)					
Pipe Connections	Liquid Pipes(mm(inch))	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
i ipe connections	Gas Pipes(mm(inch))	Ø38.1(1 <sup>1</sup> / <sub>2</sub> )					

Unit		3 Outdoor Units						
System(HP)		28	30	32	34	36	38	40
Model		LRUN2809TR0	LRUN3009TR0	LRUN3209TR0	LRUN3409TR0	LRUN3609TR0	LRUN3809TR0	LRUN4009TR0
		LRUN809TR0	LRUN1009TR0	LRUN1209TR0	LRUN1409TR0	LRUN1209TR0	LRUN1409TR0	LRUN1609TR0
		LRUH1009TR0	LRUH1009TR0	LRUH1009TR0	LRUH1009TR0	LRUH1209TR0	LRUH1209TR0	LRUH1209TR0
		LRUH1009TR0	LRUH1009TR0	LRUH1009TR0	LRUH1009TR0	LRUH1209TR0	LRUH1209TR0	LRUH1209TR0
Product Charge	kg	10 x 3						
CF(Correction Factor)	kg	0	0	0	1	1	2	2
Max. Connectable No.	of Indoor Units	32	32	32	34	36	38	40
Net Weight	kg(lbs)	300(661.4) x 3						
Dimensions (W x H x D)	mm(inch)	(1280 x 1555 x 730) x 3						
Dilliciololis (W X I I X D)	Tillin(illion)	((50.4 x 61.2 x 28.7) x 3)						
Pipe Connections	Liquid Pipes(mm(inch))	Ø22.2(7/8)						
Tipe Confidentions	Gas Pipes(mm(inch))	Ø44.5(1 <sup>3</sup> / <sub>4</sub> )						

# Power Supply: Outdoor Unit (3Ø, 220V, 60Hz)

### ■ Cooling Only

Unit			1 Outdoor Unit	
System(HP)		8	10	12
Model		LRUV80BT0	LRUV100BT0	LRUV120BT0
Product Charge	kg	10	10	10
CF(Correction Factor)	kg	-1	-1	-1
Max. Connectable No.	of Indoor Units	13	16	16
Net Weight	kg(lbs)	300(661.4)	300(661.4)	300(661.4)
Dimensions (W x H x D)	mm(inch)	1280 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730
Dimensions (W X 11 X D)	mini(inch)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)
Pipe Connections	Liquid Pipes(mm(inch))	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
Pipe Connections	Gas Pipes(mm(inch))	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )

### ■ Heat Pump

Unit		1 Outdoor Unit				
System(HP)		8	10	12		
Model		LRUN80BT0 LRUN100BT0		LRUN120BT0		
Product Charge	kg	10	10	10		
CF(Correction Factor)	kg	-1	-1 -1			
Max. Connectable No.	of Indoor Units	13	16	16		
Net Weight	kg(lbs)	300(661.4)	300(661.4)	300(661.4)		
Dimensions (W x H x D)	mm(inch)	1280 x 1555 x 730	1280 x 1555 x 730	1280 x 1555 x 730		
Difficisions (W X 11 X D)	Tillin(interi)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)	(50.4 x 61.2 x 28.7)		
Pine Connections	Liquid Pipes(mm(inch))	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)		
Pipe Connections	Gas Pipes(mm(inch))	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )	Ø28.58(1 <sup>1</sup> / <sub>8</sub> )		

# **Indoor Units**

# **Ceiling Mounted Cassette Type (1Way)**

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# 1. Specifications

### 1.1 50Hz

### 1.1.1 Cooling Only

Cooling Only (50Hz)

	Model	Unit	LRNV076TCA(C)0	LRNV096TCA(C)0	LRNV126TCA(C)0
	mouoi	W	2,100	2,600	3,500
Cooling Capacity	d.	kcal/h	1,806	2,235	3,009
Cooming Capacit	y	Btu/h	7,165	8,871	11,942
		W	-	-	-
Heating Capacity	W	kcal/h	-	-	-
Trouting Capacit	y	Btu/h	-	-	_
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
		mm	860*390*180	860*390*180	860*390*180
D:(\\/*LI*D)	Body	inch	33.8*15.3*7.0	33.8*15.3*7.0	33.8*15.3*7.0
Dimensions (W*H*D)	Front Panel	mm	1050*480*30	1050*480*30	1050*480*30
	FIOHE Panel	inch	41.3*18.9*1.2	41.3*18.9*1.2	41.3*18.9*1.2
Coil	Rows x Columns x FPI		2*12*18	2*12*21	2*12*21
Coll	Face Area	m <sup>2</sup>	0.17	0.17	0.17
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output	W	14	14	14
	Running Current	Α	0.22	0.22	0.22
Fan	Air Flow Rate(H/M/L)	cmm	6/5/4	7/6/5	10/9/8
		cfm	212/177/141	247/212/177	353/318/283
	Drive	Drive		Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbin	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device	_		Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	17(37.5)	17(37.5)	17(37.5)
Noise Level(Sou	nd Press, 1.5m, H/M/L)	dBA±3	35/32/29	37/34/31	39/36/35
Power Supply Ø / V		Ø/V/Hz	1 / 220 ~ 240V / 50Hz	1 / 220 ~ 240V / 50Hz	1 / 220 ~ 240V / 50Hz
Refrigerant Cont	trol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	263/539	263/539	263/539

### Notes:

- 1. Capacities are based on the following conditions:
  - Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
    - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

### Conversion Formula

Kcal/h= kW x 860 Btu/h = kW x 3412 cfm = m³/min x 35.3

### 2.1.2 Heat Pump

Heat Pump (50Hz)

	Model	Unit	LRNN076TCA(C)0	LRNN096TCA(C)0	LRNN126TCA(C)0
Cooling Capacity		W	2,100	2,600	3,500
		kcal/h	1,806	2,235	3,009
		Btu/h	7,165	8,871	11,942
		W	2,363	2,925	3,938
Heating Capacity	<b>y</b>	kcal/h	2,031	2,515	3,385
		Btu/h	8,061	9,980	13,435
Casing		•	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Body	mm	860*390*180	860*390*180	860*390*180
Dimensions (W*H*D)	Бойу	inch	33.8*15.3*7.0	33.8*15.3*7.0	33.8*15.3*7.0
Difficiations (W 11 D)	Front Panel	mm	1050*480*30	1050*480*30	1050*480*30
	T TOTIL FAILE	inch	41.3*18.9*1.2	41.3*18.9*1.2	41.3*18.9*1.2
Coil	Rows x Columns x FPI		2*12*18	2*12*21	2*12*21
Oon	Face Area	m <sup>2</sup>	0.17	0.17	0.17
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output	W	14	14	14
	Running Current	Α	0.22	0.22	0.22
Fan	Air Flow Rate(H/M/L)	cmm	6/5/4	7/6/5	10/9/8
		cfm	212/177/141	247/212/177	353/318/283
	Drive		Direct	Direct	Direct
Speed control			Phase Control	Phase Control	Phase Control
Temperature Co			Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	17(37.5)	17(37.5)	17(37.5)
Noise Level(Sound Press, 1.5m, H/M/L)		dBA±3	35/32/29	37/34/31	39/36/35
Power Supply Ø		Ø / V / Hz	1 / 220 ~ 240 / 50Hz	1 / 220 ~ 240 / 50Hz	1 / 220 ~ 240 / 50Hz
Refrigerant Control			LEV	LEV	LEV
Power cable m		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission cable r		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	263/539	263/539	263/539

### Notes:-

Capacities are based on the following conditions:
 Cooling
 • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
 • Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3412$  $cfm = m^3/min \times 35.3$ 

# 1.2 60Hz

### 1.2.1 Cooling Only

Cooling Only(60Hz)

<del></del>		·	1 D1 11 (0 = 0 T 0 1 (C) 5	L DAN (COOTO A (C) C	L DAN (400TO A (C) 5
	Model	Unit	LRNV072TCA(C)0	LRNV092TCA(C)0	LRNV122TCA(C)0
		W kcal/h	2,100	2,600	3,500
Cooling Capacity	Cooling Capacity		1,806	2,235	3,009
		Btu/h	7,165	8,871	11,942
		W	-	-	-
Heating Capacity	/	kcal/h	-	<u>-</u>	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Body	mm	860*390*180	860*390*180	860*390*180
Dimensions (W*H*D)		inch	33.8*15.3*7.0	33.8*15.3*7.0	33.8*15.3*7.0
	Front Panel	mm	1050*480*30	1050*480*30	1050*480*30
		inch	41.3*18.9*1.2	41.3*18.9*1.2	41.3*18.9*1.2
Coil	Rows x Columns x FPI		2*12*18	2*12*21	2*12*21
	Face Area	m²	0.17	0.17	0.17
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
I	Motor Output	W	14	14	14
I	Running Current	Α	0.22	0.22	0.22
Fan	Air Flow Rate(H/M/L)	cmm	6/5/4	7/6/5	10/9/8
I		cfm	212/177/141	247/212/177	353/318/283
I	Drive		Direct	Direct	Direct
Speed control			Phase Control	Phase Control	Phase Control
Temperature Cor			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
•	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	17(37.5)	17(37.5)	17(37.5)
Noise Level(Sour	nd Press, 1.5m, H/M/L)	dBA±3	35/32/29	37/34/31	39/36/35
Power Supply 9		Ø / V / Hz	1 / 220 / 60Hz	1 / 220 / 60Hz	1 / 220 / 60Hz
Refrigerant Control			LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission cal	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	263/539	263/539	263/539
			1		1

### Notes:-

- 1. Capacities are based on the following conditions:
  - Cooling

     Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

     Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

     Interconnecting Piping Length 7.5m

    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3412$  $cfm = m^3/min \times 35.3$ 

### 2.2.2 Heat Pump

### Heat Pump (60Hz)

	Model	Unit	LRNN072TCA(C)0	LRNN092TCA(C)0	LRNN122TCA(C)0
Cooling Capacity		W	2,100	2,600	3,500
		kcal/h	1,806	2,235	3,009
		Btu/h	7,165	8,871	11,942
		W	2,363	2,925	3,938
<b>Heating Capacity</b>		kcal/h	2,031	2,515	3,385
		Btu/h	8,061	9,980	13,435
Casing		•	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Pody	mm	860*390*180	860*390*180	860*390*180
Dimensions (W*H*D)	Body	inch	33.8*15.3*7.0	33.8*15.3*7.0	33.8*15.3*7.0
, , ,	Front Panel	mm	1050*480*30	1050*480*30	1050*480*30
	I TOTIL FAITE	inch	41.3*18.9*1.2	41.3*18.9*1.2	41.3*18.9*1.2
Coil	Rows x Columns x FPI		2*12*18	2*12*21	2*12*21
0011	Face Area	m²	0.17	0.17	0.17
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output	W	14	14	14
	Running Current	Α	0.22	0.22	0.22
Fan	Air Flow Rate(H/M/L)	cmm	6/5/4	7/6/5	10/9/8
		cfm	212/177/141	247/212/177	353/318/283
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Cor	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(OD))	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	17(37.5)	17(37.5)	17(37.5)
Noise Level(Sound Press, 1.5m, H/M/L)		dBA±3	35/32/29	37/34/31	39/36/35
Power Supply		Ø/V/Hz	1 / 220 / 60Hz	1 / 220 / 60Hz	1 / 220 / 60Hz
Refrigerant Control			LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission cable		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Panel Color			***************************************		

### Notes:-

1. Capacities are based on the following conditions:

- Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
   Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

### **Conversion Formula**

 $kcal/h = kW \times 860$  $Btu/h = kW \times 3412$  $cfm = m^3/min \times 35.3$ 

# 2. Functions

# Indoor Unit

ntroller						
Room temperature sensor. (Thermistor)						
Maintains the room temperature in accordance with the Setting temperature						
loor fan is delayed for 5 seconds at the starting.						
estarting is inhibited for approx. 3 minutes.						
et, High, Med, Low						
ermittent operation of fan at low speed.						
e louver can be set at swing up and down automatically.						
Auto Restart     • Although the air-conditioner is turned off by a power failure, it is restarted automatically previous operation mode after power supply.						
Both the indoor and outdoor fan stops during defrosting.     Hot start after defrost ends.						
• The indoor fan does not rotate until the evaporator piping temperature will be reached at 25°C.						
To install a unit is very convenient because of smaller size than textile.						
<ul> <li>The most advanced low-noise design.</li> <li>The adoption of turbo fan and round type heat exchanger give the quietest operation.</li> </ul>						
Long life wrinkle(type) and washable and anti-bacteria filter is adopted.						
Built-in drain pump automatically drains water.     A standard drain-head height of up to 700mm is possible.						
According to the height of ceiling, the RPM of indoor fan motor is selected to increase air reaching distance.						
It is operating individually or totally by central control function.						
e e e e e						

# 3. Operation Details

### (1) The function of main control

### ■ Time Delay Safety Control

- 5sec ··· Vertical louvers are delayed for 5 secs to be opened to prevent the frictional sound between louver and air
- 30sec... The 4-way valve is ceased for 30sec, to prevent abnormal noise when the Heating operation is OFF or switched to the other operation mode while compress is off. While compressor is running, it takes 3~5 seconds to switch.

### ■ Auto Swing Control

• This function is to swing the louver up and down automatically.

### ■ Air-Filter Checking Control

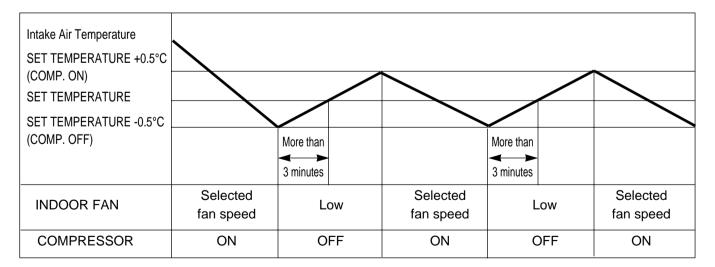
• 'Filter' sign will appear on the remote controller display and main body display when an air-filter is polluted. Then clean the air-filter referring to Owners Manual.

### **■** Soft-Dry Operation

• The indoor fan speed is automatically set to the low, and fan speed control is not available because of already being set to the best speed for Dry Operation by microcontroller control.

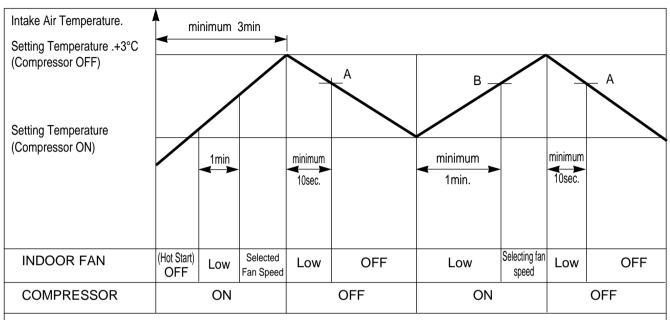
### **■** Cooling Mode Operation

• When selecting the Cooling(\*) Mode Operation, the unit will operate according to the setting by the remote controller and the operation diagram is as follows.



### **■** Heating Mode Operation

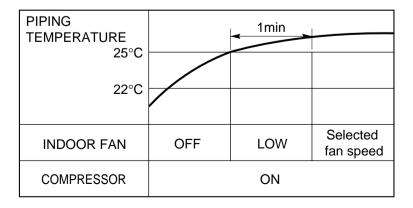
The unit will operate according to the setting by the remote controller and the operation diagram is shown as follows.



- A point; While the indoor Heat-Exchanger temperature is higher than 40°C fan operates at low speed, when it becomes lower than 40°C fan stops.
- B point; When the indoor Heat-Exchanger temperature is higher than 42°C, fan operates at selected fan speed, when it becomes lower than 39°C, the fan operates at low speed.

### **■** Hot-Start Control

- The indoor fan sdoes not rotate until the evaporator piping temperature reaches to 25°C.
- If the evaporator piping temperature drops below 22°C, indoor fan stops again.
- The operation diagram is as follows.

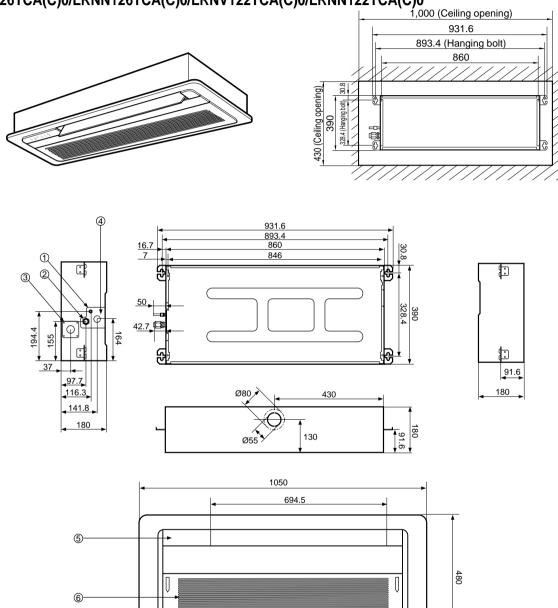


# 4. Dimensional Drawings

LRNV076TCA(C)0/LRNN076TCA(C)0/LRNV072TCA(C)0/LRNN072TCA(C)0 LRNV096TCA(C)0/LRNN096TCA(C)0/LRNV092TCA(C)0/LRNN092TCA(C)0 LRNV0961CA(C)0/LRNN126TCA(C)0/LRNV122TCA(C)0/LRNN122TCA(C)0

LRNV126TCA(C)0/LRNN126TCA(C)0/LRNV122TCA(C)0/LRNN122TCA(C)0

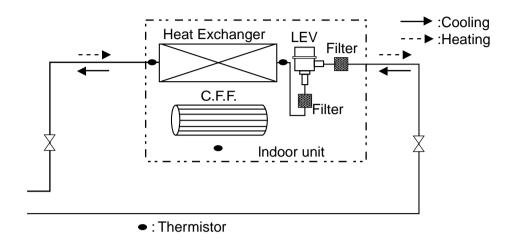
1,000 (Ceiling opening)



Number	Name	Descripition
1	Liquid pipe connection	ø6.35 flare
2	Gas pipe connection	ø12.7 flare
3	Drain pipe connection	
4	Power supply connection	
5	Air discharge grill	
6	Air suction grill	

(unit: mm)

# 5. Piping Diagrams

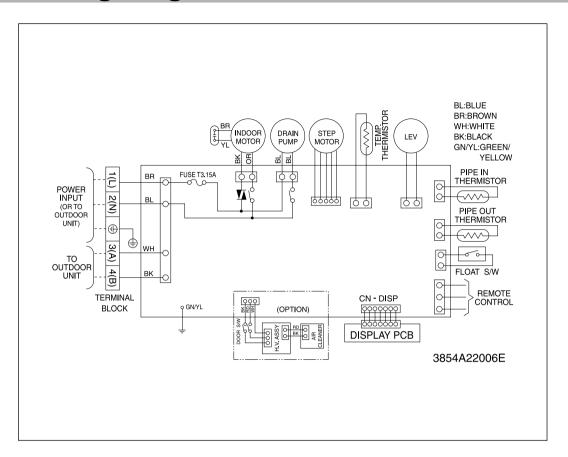


Refrigerant pipe connection port diameter

[unit: mm(inch)]

Model	Gas	Liquid
LRNV076TCA(C)0/LRNN076TCA(C)0/LRNV072TCA(C)0/LRNN072TCA(C)0		
LRNV096TCA(C)0/LRNN096TCA(C)0/LRNV092TCA(C)0/LRNN092TCA(C)0	12.7(1/2)	6.35(1/4)
LRNV126TCA(C)0/LRNN126TCA(C)0/LRNV122TCA(C)0/LRNN122TCA(C)0		

# 6. Wiring Diagrams



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	WHITE	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR2	AC FAN MOTOR OUTPUT	YELLOW	MOTOR OUTPUT OF PHASE CONTROL
CN-D/PUMP	DRAIN PUMP OUTPUT	WHITE	AC OUTPUT FOR DRAIN PUMP
CN-COMM	COMMUNICATION	WHITE	CONNECTION BETWEEN INDOOR AND OUTDOOR
CN-DISP1	DISPLAY	BLUE	DISPLAY OF INDOOR STATUS
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-STEP/M1	STEP MOTOR	WHITE	STEP MOTOR OUTPUT
CN-FLOAT	FLOAT SWITCH INPUT	BLUE	FLOAT SWITCH SENSING
CN-PIPE	PIPE SENSOR	WHITE	PIPE THERMISTOR
CN-PIPE/O	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR
CN-ROOM	ROOM SENSOR	YELLOW	ROOM THERMISTOR
CN-REMO	REMOTE CONTROLLER	WHITE	REMOTE CONTROL LINE

# **Ceiling Mounted Cassette Type (4Way)**

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# 1. Specifications

### 1.1 50Hz

### 1.1.1 Cooling Only

Cooling Only (50Hz)

Cooling Capacity				L DAN (400TE A (C) C	L DAD (400TE A (C) C	L DAN (04 OTD A (C) C
Real/h   3,009   4,557   5,331	Model		Unit	LRNV126TEA(C)0	LRNV186TEA(C)0	LRNV216TDA(C)0
Btu/h				,	,	,
Heating Capacity	Cooling Capacity	Cooling Capacity		,	,	
Heating Capacity				11,942	18,084	21,155
Btu/h			W	-	-	-
Casing	Heating Capacity	y	kcal/h	-	-	-
Body			Btu/h	-	-	-
Dimensions (W"H"D)   Eront Panel   front Panel   mm   670°670°30   670°670°30   950°950°30   inch   26.4°26.4°1.2   26.4°26.4°1.2   37.4°37.4°1.2   27.2°2.6   27.2°2.0   27.0°2.6   27.0°2.6   27.0°2.5   27	Casing				Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W*H*D)		Rody	mm	570*570*269	570*570*269	840*840*290
Front Panel	Dimensions (W*H*D)		inch	22.4*22.4*10.5	22.4*22.4*10.5	33.0*33.0*11.4
Coil   Rows x Columns x FPI   2*11*19   2*11*19   2*11*19   2*12*21	Diffictions (W 11 D)		mm	670*670*30		950*950*30
Face Area   m²   0.27   0.27   2*0.26		T TOTAL T ALLOI	inch			
Face Area   m²   0.27   0.27   2*0.26	Coil	Rows x Columns x FPI				
Motor Output	Con	Face Area	m²			2*0.26
Fan		Туре				
Fan         Air Flow Rate(H/M/L)         cmm         11/10/9         13/12/10         18/15.9/13.9           Drive         Drive         Direct         Direct         Direct         Direct           Sound Absorbing Thermal Insulation Material         Foamed polystrene         Bolystrene		Motor Output	W			60
Cfm   389/353/318   459/424/353   636/562/491		Running Current	Α	0.69	0.69	0.80
Drive   Direct   Direct   Direct   Direct   Direct   Speed control   Phase	Fan	Air Flow Rate(H/M/L)	cmm	11/10/9	13/12/10	18/15.9/13.9
Speed control   Phase Contro			cfm	389/353/318	459/424/353	636/562/491
Temperature Control         Microprocessor, Themostat for cooling         Power Found         Microprocessor, Themostat for cooling         Microprocessor, Themostat for cooling         Power Found         Foamed polystrene         Fuse, Themal Fuse for Fan Motor         Fuse, Themal Fuse for Fan Motor         Fuse, Themal Fuse for Fan Motor         ### Posses				Direct	Direct	Direct
Sound Absorbing Thermal Insulation Material         Foamed polystrene         Foamed polystrene         Foamed polystrene         Foamed polystrene           Safety Device         Fuse, Thermal Fuse for Fan Motor         Fuse, Thermal Fuse for		Speed control		Phase Control	Phase Control	Phase Control
Safety Device         Fuse, Thermal Fuse for Fan Motor         Fuse, The Mo	Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Liquid Side   mm(inch)   Ø6.35(1/4)   Ø9.52(3/8)   Ø9.52(3/8)   Ø9.52(3/8)	Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Pipe Connections         Gas Side         mm(inch)         Ø12.7(1/2)         Ø15.88(5/8)         Ø15.88(5/8)           Drain Pipe(OD)         mm         32.0         32.0         32.0           Net Weight         kg(lbs)         19(41.9)         19(41.9)         32(70.5)           Noise Level(Sound Press, 1.5m, H/M/L)         dBA±3         38/35/32         41/39/37         40/37/35           Power Supply         Ø / V / Hz         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50           Refrigerant Control         LEV         LEV         LEV           Power cable         mm²         CV2.0 X 3C         CV2.0 X 3C         CV2.0 X 3C           Transmission cable         mm²         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C           Panel Color         White         White         White	Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
Drain Pipe(OD)         mm         32.0         32.0         32.0           Net Weight         kg(lbs)         19(41.9)         19(41.9)         32(70.5)           Noise Level(Sound Press, 1.5m, H/M/L)         dBA±3         38/35/32         41/39/37         40/37/35           Power Supply         Ø / V / Hz         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50           Refrigerant Control         LEV         LEV         LEV           Power cable         mm²         CV2.0 X 3C         CV2.0 X 3C         CV2.0 X 3C           Transmission cable         mm²         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C           Panel Color         White         White         White		Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)	Ø9.52(3/8)
Net Weight         kg(lbs)         19(41.9)         19(41.9)         32(70.5)           Noise Level(Sound Press, 1.5m, H/M/L)         dBA±3         38/35/32         41/39/37         40/37/35           Power Supply         Ø / V / Hz         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50           Refrigerant Control         LEV         LEV         LEV           Power cable         mm²         CV2.0 X 3C         CV2.0 X 3C           Transmission cable         mm²         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C           Panel Color         White         White         White	Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)	Ø15.88(5/8)
Noise Level(Sound Press, 1.5m, H/M/L)         dBA±3         38/35/32         41/39/37         40/37/35           Power Supply         Ø / V / Hz         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50           Refrigerant Control         LEV         LEV         LEV           Power cable         mm²         CV2.0 X 3C         CV2.0 X 3C         CV2.0 X 3C           Transmission cable         mm²         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C           Panel Color         White         White         White		Drain Pipe(OD)	mm	32.0	32.0	32.0
Power Supply         Ø / V / Hz         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50         1 / 220 ~ 240 / 50           Refrigerant Control         LEV         LEV         LEV           Power cable         mm²         CV2.0 X 3C         CV2.0 X 3C         CV2.0 X 3C           Transmission cable         mm²         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C           Panel Color         White         White         White	Net Weight		kg(lbs)	19(41.9)	19(41.9)	32(70.5)
Refrigerant Control         LEV         LEV         LEV           Power cable         mm²         CV2.0 X 3C         CV2.0 X 3C         CV2.0 X 3C           Transmission cable         mm²         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C           Panel Color         White         White         White	Noise Level(Sound Press, 1.5m, H/M/L)		dBA±3	38/35/32	41/39/37	
Power cable         mm²         CV2.0 X 3C         CV2.0 X 3C         CV2.0 X 3C           Transmission cable         mm²         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C         CVV-SB 1.25 X 2C           Panel Color         White         White         White	Power Supply &		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	
Transmission cable mm² CVV-SB 1.25 X 2C CVV-SB 1.25 X 2C CVV-SB 1.25 X 2C Panel Color White White	Refrigerant Control					
Panel Color White White White	Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
	Transmission cable		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity         Without S/parts         20/40ft         189/378         189/378         72/144	Panel Color		•	White	White	White
	Stuffing Quantity	Without S/parts	20/40ft	189/378	189/378	72/144

Capacities are based on the following conditions:
 Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification

### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3412$  $cfm = m^3/min \times 35.3$ 

### Cooling Only (50Hz)

				LRNV286TDA(C)0	LRNV366TDA(C)0
Cooling Capacity		W	7,000	8,200	10,600
		kcal/h	6,019	7,052	9,116
		Btu/h	23,885	27,995	36,168
		W	-	-	-
Heating Capacity		kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Body		mm	840*840*290	840*840*290	840*840*290
Dimensions (W*H*D)		inch	33.0*33.0*11.4	33.0*33.0*11.4	33.0*33.0*11.4
Front Panel		mm	950*950*30	950*950*30	950*950*30
1 TOTE I ATTE		inch	37.4*37.4*1.2	37.4*37.4*1.2	37.4*37.4*1.2
Coil Rows x Colu	ımns x FPI		2*12*21	2*12*21	2*12*21
Face Area		m²	2*0.26	2*0.26	2*0.26
Туре			Turbo Fan	Turbo Fan	Turbo Fan
Motor Outp	ut	W	60	60	60
Running Cu	ırrent	Α	0.80	0.80	1.10
Fan Air Flow Ra	te(H/M/L)	cmm	19/17/15	23/21/18	26/24/22
		cfm	671/601/530	813/742/636	919/848/777
Drive	Drive		Direct	Direct	Direct
Speed control			Phase Control	Phase Control	Phase Control
Temperature Control			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing Thermal In:	sulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
Liquid Side		mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections Gas Side		mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø19.05(3/4)
Drain Pipe(OI	0)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	32(70.5)	32(70.5)	32(70.5)
Noise Level(Sound Press, 1.5m, H/M/L) dE		dBA±3	41/38/36	42/40/38	43/41/39
Power Supply Ø / V / F		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV	LEV
Power cable mm <sup>2</sup>		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission cable		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Panel Color Stuffing Quantity   Without S/pa		20/40ft	72/144	72/144	72/144

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3412$  $cfm = m^3/min \times 35.3$ 

### Cooling Only (50Hz)

	Model	Unit	LRNV386TDA(C)0	LRNV426TDA(C)0	LRNV486TDA(C)0
Cooling Capacity		W	11,100	12,300	14,100
		kcal/h	9,544	10,578	12,126
		Btu/h	37,875	41,992	48,137
		W	-	-	-
Heating Capacity	/	kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Pody.	mm	840*840*290	840*840*290	840*840*290
Dimensions (W*H*D)	Body	inch	33.0*33.0*11.4	33.0*33.0*11.4	33.0*33.0*11.4
DITIENSIONS (W H D)	Front Panel	mm	950*950*30	950*950*30	950*950*30
	FIOIIL Failei	inch	37.4*37.4*1.2	37.4*37.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*12*21	2*12*21	2*12*21
Oon	Face Area	m²	2*0.26	2*0.26	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	60	60	60
	Running Current	Α	1.10	1.10	1.10
Fan	Air Flow Rate(H/M/L)	cmm	28/26 /24	32.5/30/28.1	34.5/32.5/30
		cfm	989/919/848	1148/1060/993	1219/1148/1060
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	32(70.5)	32(70.5)	32(70.5)
Noise Level(Sound Press, 1.5m, H/M/L)		dBA±3	43.5/41.5/39.5	44/42/40	45/43/41
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1, 220 ~ 240, 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission cable m		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity   Without S/parts		20/40ft	72/144	72/144	72/144

### Notes:-

- 1. Capacities are based on the following conditions:
  - Cooling

     Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

     Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

### **Conversion Formula**

Kcal/h= kW x 860 Btu/h = kW x 3412  $cfm = m^3/min \times 35.3$ 

### 2.1.2 Heat Pump

Heat Pump (50Hz)

	Model		LRNN126TEA(C)0	LRNN186TEA(C)0	LRNN216TDA(C)0
		W	3,500	5,300	6,200
Cooling Capacity		kcal/h	3,009	4,557	5,331
		Btu/h	11,942	18,084	21,155
		W	3,938	5,963	6,975
Heating Capacity	/	kcal/h	3,385	5,127	5,997
		Btu/h	13,435	20,345	23,800
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Pody	mm	570*570*269	570*570*269	840*840*290
Dimensions (W*H*D)	Body	inch	22.4*22.4*10.5	22.4*22.4*10.5	33.0*33.0*11.4
Difficitions (W 11 D)	Front Panel	mm	670*670*30	670*670*30	950*950*30
	T TOTAL T ALICE	inch	26.4*26.4*1.2	26.4*26.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*11*19	2*11*19	2*12*21
0011	Face Area	m²	0.27	0.27	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	20	25	60
	Running Current	Α	0.69	0.69	0.80
Fan	Air Flow Rate(H/M/L)	cmm	11/10/9	13/12/10	18/15.9/13.9
		cfm	389/353/318	459/424/353	636/562/491
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	19(41.9)	19(41.9)	32(70.5)
Noise Level(Sour	nd Press, 1.5m, H/M/L)	dBA±3	38/35/32	41/39/37	40/37/35
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission cal	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	189/378	189/378	72/144

#### Notes:-

1. Capacities are based on the following conditions:

- Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
   Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
  Level Difference of Zero

Heating

- Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

#### Heat Pump (50Hz)

	Model	Unit	LRNN246TDA(C)0	LRNN286TDA(C)0	LRNN366TDA(C)0
Cooling Capacity		W	7,000	8,200	10,600
		kcal/h	6,019	7,052	9,116
		Btu/h	23,885	27,995	36,168
		W	7,875	9,225	11,925
Heating Capacity	/	kcal/h	6,771	7,934	10,253
		Btu/h	26,870	31,494	40,689
Casing		1	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
<u> </u>	Dody	mm	840*840*290	840*840*290	840*840*290
Dimensions (W*H*D)	Body	inch	33.0*33.0*11.4	33.0*33.0*11.4	33.0*33.0*11.4
Dilliensions (W 11 D)	Front Panel	mm	950*950*30	950*950*30	950*950*30
	FIOILFailei	inch	37.4*37.4*1.2	37.4*37.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*12*21	2*12*21	2*12*21
Con	Face Area	m²	2*0.26	2*0.26	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	60	60	60
	Running Current	Α	0.80	0.80	1.10
Fan	Air Flow Rate(H/M/L)	cmm	19/17/15	23/21/18	26/24/22
		cfm	671/601/530	813/742/636	919/848/777
	Drive	•	Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device	-		Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
-	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø19.05(3/4)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	32(70.5)	32(70.5)	32(70.5)
Noise Level(Sour	nd Press, 1.5m, H/M/L)	dBA±3	41/38/36	42/40/38	43/41/39
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	72/144	72/144	72/144

#### Notes:-

1. Capacities are based on the following conditions:

- Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
  - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero

- Heating
  Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### Conversion Formula

#### Heat Pump (50Hz)

	Model	Unit	LRNN386TDA(C)0	LRNN426TDA(C)0	LRNN486TDA(C)0
			11,100	12,300	14,100
Cooling Capacity		kcal/h	9,544	10,578	12,126
		Btu/h	37,875	41,992	48,137
		W	12,487	13,838	15,863
Heating Capacity	/	kcal/h	10,737	11,040	13,156
		Btu/h	42,607	43,829	54,156
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Body	mm	840*840*290	840*840*290	840*840*290
Dimensions (W*H*D)		inch	33.0*33.0*11.4	33.0*33.0*11.4	33.0*33.0*11.4
Difficitsions (W 11 D)	Front Panel	mm	950*950*30	950*950*30	950*950*30
	T TOTAL T ALICE	inch	37.4*37.4*1.2	37.4*37.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*12*21	2*12*21	2*12*21
Con	Face Area	m²	2*0.26	2*0.26	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	60	60	60
	Running Current	Α	1.10	1.10	1.10
Fan	Air Flow Rate(H/M/L)	cmm	28/26 /24	32.5/30/28.1	34.5/32.5/30
		cfm	989/919/848	1148/1060/993	1219/1148/1060
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co			Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	32(70.5)	32(70.5)	32(70.5)
Noise Level(Sou	nd Press, 1.5m, H/M/L)	dBA±3	43.5/41.5/39.5	44/42/40	45/43/41
Power Supply	Power Supply Ø		1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	72/144	72/144	72/144

#### Notes:-

1. Capacities are based on the following conditions:

- Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
  Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  Interconnecting Piping Length 7.5m
- Level Difference of Zero

Heating

- Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
- Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

### **Conversion Formula**

# 1.2 60Hz

# 1.2.1 Cooling Only

Cooling Only (60Hz)

	Model	Unit	LRNV122TEA(C)0	LRNV182TEA(C)0	LRNV212TDA(C)0
		W	3,500	5,300	6,200
Cooling Capacity		kcal/h	3,009	4,557	5,331
		Btu/h	11,942	18,084	21,155
		W	-	-	-
Heating Capacity	y	kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Body	mm	570*570*269	570*570*269	840*840*290
Dimensions (W*H*D)		inch	22.4*22.4*10.5	22.4*22.4*10.5	33.0*33.0*11.4
	Front Panel	mm	670*670*30	670*670*30	950*950*30
	TOTAL FAILE	inch	26.4*26.4*1.2	26.4*26.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*11*19	2*11*19	2*12*21
	Face Area	m²	0.27	0.27	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	20	25	60
	Running Current	Α	0.69	0.69	0.80
Fan	Air Flow Rate(H/M/L)	cmm	11/10/9	13/12/10	18/15.9/13.9
		cfm	389/353/318	459/424/353	636/562/491
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	19(41.9)	19(41.9)	32(70.5)
Noise Level(Sou	nd Press, 1.5m, H/M/L)	dBA±3	38/35/32	41/39/37	40/37/35
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm <sup>2</sup>	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm <sup>2</sup>	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	189/378	189/378	72/144
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1. Capacities are based on the following conditions:

- Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
   Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

### Cooling Only (60Hz)

	Model	Unit	LRNV242TDA(C)0	LRNV282TDA(C)0	LRNV362TDA(C)0
			7,000	8,200	10,600
Cooling Capacity		kcal/h	6,019	7,052	9,116
		Btu/h	23,885	27,995	36,168
		W	-	-	-
Heating Capacit	y	kcal/h	-	-	
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Body	mm	840*840*290	840*840*290	840*840*290
Dimensions (W*H*D)		inch	33.0*33.0*11.4	33.0*33.0*11.4	33.0*33.0*11.4
Dillicisions (W 11 D)	Front Panel	mm	950*950*30	950*950*30	950*950*30
	1 TOTAL T ATTE	inch	37.4*37.4*1.2	37.4*37.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*12*21	2*12*21	2*12*21
Con	Face Area	m²	2*0.26	2*0.26	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	60	60	60
	Running Current	Α	0.80	0.80	1.10
Fan	Air Flow Rate(H/M/L)	cmm	19/17/15	23/21/18	26/24/22
		cfm	671/601/530	813/742/636	919/848/777
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbin	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø19.05(3/4)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	32(70.5)	32(70.5)	32(70.5)
Noise Level(Sound Press, 1.5m, H/M/L)		dBA±3	41/38/36	42/40/38	43/41/39
Power Supply Ø		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Con	trol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	72/144	72/144	72/144

1. Capacities are based on the following conditions:

- Cooling

   Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

   Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### Conversion Formula

#### Cooling Only (60Hz)

	Model	Unit	LRNV382TDA(C)0	LRNV422TDA(C)0	LRNV482TDA(C)0
Cooling Capacity		W	11,100	12,300	14,100
		kcal/h	9,544	10,578	12,126
		Btu/h	37,875	41,992	48,137
		W	-	-	-
<b>Heating Capacity</b>	у	kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Body	mm	840*840*290	840*840*290	840*840*290
Dimensions (W*H*D)		inch	33.0*33.0*11.4	33.0*33.0*11.4	33.0*33.0*11.4
Difficusions (W 11 D)	Front Panel	mm	950*950*30	950*950*30	950*950*30
	T TOTAL T ALLEI	inch	37.4*37.4*1.2	37.4*37.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*12*21	2*12*21	2*12*21
Oon	Face Area	m <sup>2</sup>	2*0.26	2*0.26	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	60	60	60
	Running Current	Α	1.10	1.10	1.10
Fan	Air Flow Rate(H/M/L)	cmm	28/26 /24	32.5/30/28.1	34.5/32.5/30
		cfm	989/919/848	1148/1060/993	1219/1148/1060
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	32(70.5)	32(70.5)	32(70.5)
Noise Level(Sou	nd Press, 1.5m, H/M/L)	dBA±3	43.5/41.5/39.5	44/42/40	45/43/41
Power Supply	,	Ø / V / Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color		•	White	White	White
Stuffing Quantity	Without S/parts	20/40ft	72/144	72/144	72/144
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#### Notes:-

1. Capacities are based on the following conditions:

- Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
   Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### Conversion Formula

## 2.2.2 Heat Pump

Heat Pump (60Hz)

	Model		LRNN122TEA(C)0	LRNN182TEA(C)0	LRNN212TDA(C)0
Cooling Capacity		W	3,500	5,300	6,200
		kcal/h	3,009	4,557	5,331
		Btu/h	11,942	18,084	21,155
		W	3,938	5,963	6,975
Heating Capacity	/	kcal/h	3,385	5,127	5,997
		Btu/h	13,435	20,345	23,800
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Pody.	mm	570*570*269	570*570*269	840*840*290
Dimensions (W*H*D)	Body	inch	22.4*22.4*10.5	22.4*22.4*10.5	33.0*33.0*11.4
	Front Panel	mm	670*670*30	670*670*30	950*950*30
	T TOTAL T ALIG	inch	26.4*26.4*1.2	26.4*26.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*11*19	2*11*19	2*12*21
Ooli	Face Area	m²	0.27	0.27	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	20	25	60
	Running Current	Α	0.69	0.69	0.80
Fan	Air Flow Rate(H/M/L)	cmm	11/10/9	13/12/10	18/15.9/13.9
		cfm	389/353/318	459/424/353	636/562/491
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	19(41.9)	19(41.9)	32(70.5)
Noise Level(Sour	nd Press, 1.5m, H/M/L)	dBA±3	38/35/32	41/39/37	40/37/35
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	189/378	189/378	72/144

#### Notes:-

1. Capacities are based on the following conditions:

Cooling

• Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero

Heating

- Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
- Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860 Btu/h = kW x 3412 cfm = m³/min x 35.3

#### Heat Pump (60Hz)

	Model	Unit	LRNN242TDA(C)0	LRNN282TDA(C)0	LRNN362TDA(C)0
		W	7,000	8,200	10,600
Cooling Capacity		kcal/h	6,019	7,052	9,116
		Btu/h	23,885	27,995	36,168
		W	7,875	9,225	11,925
<b>Heating Capacity</b>	У	kcal/h	6,771	7,934	10,253
		Btu/h	26,870	31,494	40,689
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Body	mm	840*840*290	840*840*290	840*840*290
Dimensions (W*H*D)		inch	33.0*33.0*11.4	33.0*33.0*11.4	33.0*33.0*11.4
Dilliciololis (W 11 D)	Front Panel	mm	950*950*30	950*950*30	950*950*30
	T TOTAL T ALIGN	inch	37.4*37.4*1.2	37.4*37.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*12*21	2*12*21	2*12*21
Oon	Face Area	m²	2*0.26	2*0.26	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	60	60	60
	Running Current	Α	0.80	0.80	1.10
Fan	Air Flow Rate(H/M/L)	cmm	19/17/15	23/21/18	26/24/22
		cfm	671/601/530	813/742/636	919/848/777
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device	-		Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø19.05(3/4)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	32(70.5)	32(70.5)	32(70.5)
Noise Level(Sour	nd Press, 1.5m, H/M/L)	dBA±3	41/38/36	42/40/38	43/41/39
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	72/144	72/144	72/144
		I	l .	•	•

#### Notes:-

1. Capacities are based on the following conditions:

- Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

#### Heat Pump (60Hz)

	Model	Unit	LRNN382TDA(C)0	LRNN422TDA(C)0	LRNN482TDA(C)0
		W	11,100	12,300	14,100
Cooling Capacity		kcal/h	9,544	10,578	12,126
		Btu/h	37,875	41,992	48,137
		W	12,487	13,838	15,863
<b>Heating Capacity</b>	У	kcal/h	10,737	11,040	13,156
		Btu/h	42,607	43,829	54,156
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
	Body	mm	840*840*290	840*840*290	840*840*290
Dimensions (W*H*D)		inch	33.0*33.0*11.4	33.0*33.0*11.4	33.0*33.0*11.4
Dilliensions (W 11 D)	Front Panel	mm	950*950*30	950*950*30	950*950*30
	TOTAL FAILE	inch	37.4*37.4*1.2	37.4*37.4*1.2	37.4*37.4*1.2
Coil	Rows x Columns x FPI		2*12*21	2*12*21	2*12*21
Oon	Face Area	m²	2*0.26	2*0.26	2*0.26
	Туре		Turbo Fan	Turbo Fan	Turbo Fan
	Motor Output	W	60	60	60
	Running Current	Α	1.10	1.10	1.10
Fan	Air Flow Rate(H/M/L)	cmm	28/26 /24	32.5/30/28.1	34.5/32.5/30
		cfm	989/919/848	1148/1060/993	1219/1148/1060
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø;19.05(3/4)
	Drain Pipe(OD)	mm	32.0	32.0	32.0
Net Weight		kg(lbs)	32(70.5)	32(70.5)	32(70.5)
Noise Level(Sou	nd Press, 1.5m, H/M/L)	dBA±3	43.5/41.5/39.5	44/42/40	45/43/41
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Panel Color			White	White	White
Stuffing Quantity	Without S/parts	20/40ft	72/144	72/144	72/144

#### Notes:-

1. Capacities are based on the following conditions:

- Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating

   Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

   Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

# 2. Functions

### **Indoor Unit** Operation ON/OFF by Remote controller • Room temperature sensor. (Thermistor) **Sensing the Room Temperature** Maintains the room temperature in accordance with the Setting Temperature. Room temperature control • Indoor fan is delayed for 5 seconds at the starting. **Starting Current Control** • Restarting is inhibited for approx. 3 minutes. **Time Delay Safety Control Indoor Fan Speed Control** • Jet, High, Med, Low **Soft Dry Operation Mode** • Intermittent operation of fan at low speed. **Airflow Direction Control** • The louver can be set at swing up and down automatically. • Although the air-conditioner is turned off by a power failure, it is restarted auto-**Auto Restart** matically previous operation mode after power supply. • Both the indoor and outdoor fan stops during defrosting. Deice (defrost) control (Heating) Hot start after defrost ends. • The indoor fan does not rotate until the evaporator pip-**Hot-start Control (Heating)** ing temperature will be reached at 25°C. To install a unit is very convenient because of smaller Compact and light design size than textile. The most advanced low-noise design. Low noise • The adoption of turbo fan and round type heat exchanger give the guietest operation. • Long life wrinkle(type) and washable and anti-bacteria Long life filter filter is adopted. • Built-in drain pump automatically drains water. **High head Drain pump** • A standard drain-head height of up to 700mm is possible. According to the height of ceiling, the RPM of indoor fan **High-Ceiling corresponding Function** motor is selected to increase air reaching distance.

• It is operating individually or totally by central control function.

Central Control(Optional)

# 3. Operation detail

# (1) The function of main control

# **■** Time Delay Safety Control

- 5 sec... Vertical air flow direction control louvers open in 5 seconds to prevent noise between louvers and wind.
- 5 sec... The 4-way valve is ceased for 5 sec. to prevent the refrigerant-gas abnormal noise when the Heating operation is OFF or switched to the other operation mode when compress is off.

  While compressor is running, it takes 3~5 seconds to switch.

### ■ Auto Swing Control

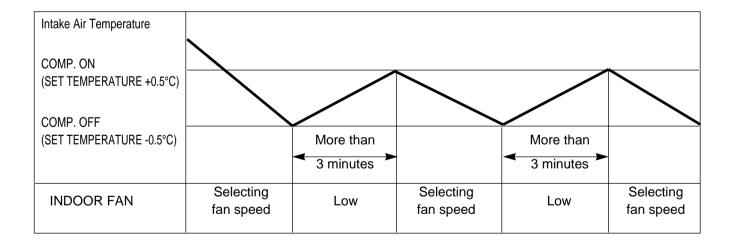
• This function is to swing the louver up and down automatically.

# **■** Soft-Dry Operation

• The indoor fan speed is automatically set to the low, so the shift of the indoor fan speed is impossible because of already being set to the best speed for Dry Operation by microcontroller control.

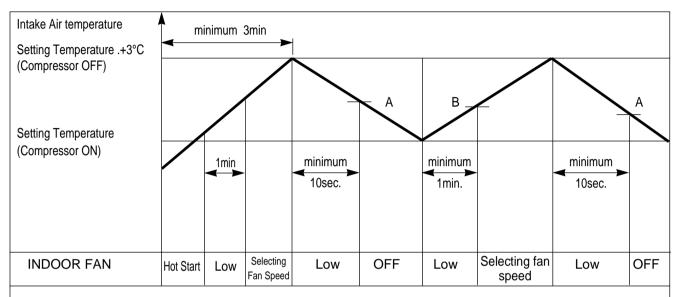
## **■** Cooling Mode Operation

• When selecting the Cooling( \*) Mode Operation, the unit will operate according to the setting by the remote controller and the operation diagram is as following



# **■** Heating Mode Operation

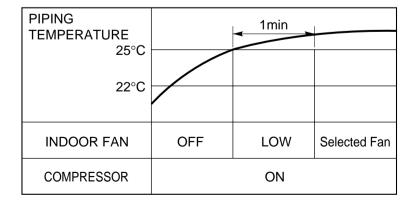
The unit will operate according to the setting by the remote controller and the operation diagram is shown as following.



- While the indoor Heat-Exchanger temperature is higher than 40°C fan operates at low speed, A point; when it becomes lower than 40°C fan stops.
- B point; When the indoor Heat-Exchanger temperature is higher than 31°C, fan operates at selected fan speed, when it becomes lower than 31°C, the fan operates at low speed for 10sec, after 10sec, it operates at selected fan speed.

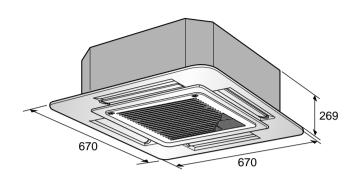
#### ■ Hot-start Control

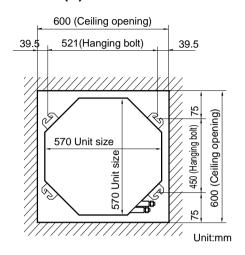
- The indoor fan does no rotate until the evaporator piping temperature will be reached to 25°C.
- · The operation diagram is as following.

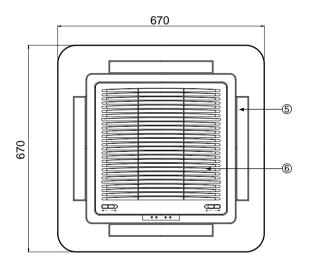


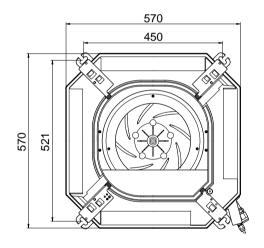
# 4. Dimensional Drawings

# LRNV126TEA(C)0/LRNN126TEA(C)0/LRNV12TEA(C)0/LRNN122TEA(C)0 LRNV186TEA(C)0/LRNN186TEA(C)0/LRNV182TEA(C)0/LRNN182TEA(C)0

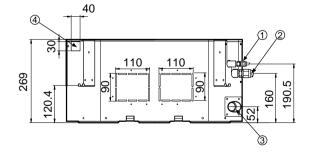








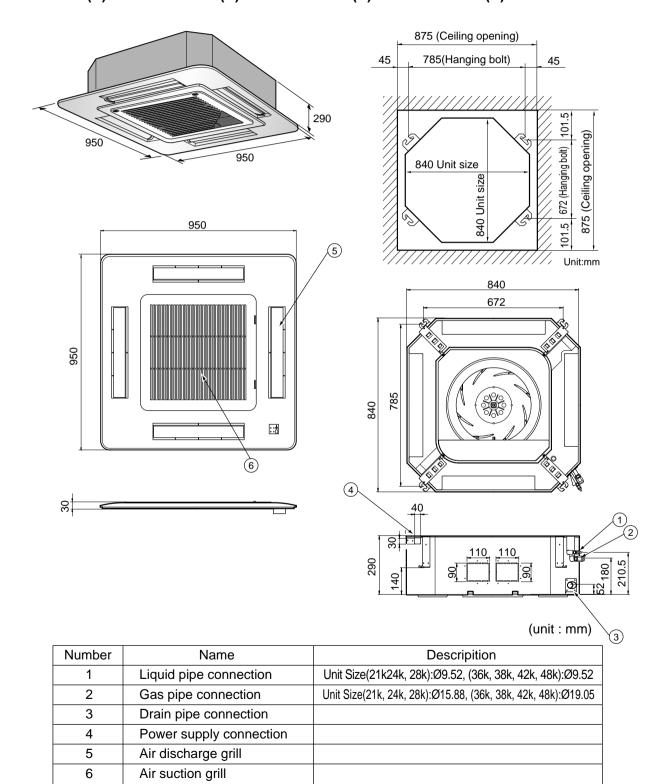




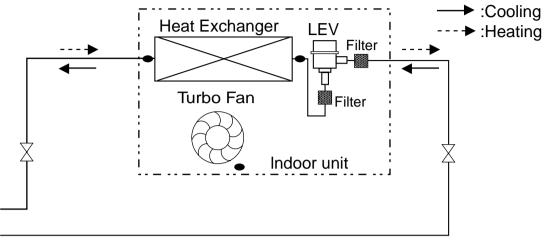
(unit: mm)

Number	Name	Descripition
1	Liquid pipe connection	Unit Size(12k):Ø6.35, (18k):Ø9.52
2	Gas pipe connection	Unit Size(12k):Ø12.7, (18k):Ø15.88
3	Drain pipe connection	
4	Power supply connection	
5	Air discharge grill	
6	Air suction grill	

LRNV216TDA(C)0 / LRNN216TDA(C)0 / LRNV212TDA(C)0 / LRNN212TDA(C)0 LRNV246TDA(C)0 / LRNN246TDA(C)0 / LRNV242TDA(C)0 / LRNN242TDA(C)0 / LRNN286TDA(C)0 / LRNN282TDA(C)0 / LRNN282TDA(C)0 / LRNN366TDA(C)0 / LRNN366TDA(C)0 / LRNN362TDA(C)0 / LRNN362TDA(C)0 LRNV386TDA(C)0 / LRNN386TDA(C)0 / LRNN382TDA(C)0 / LRNN382TDA(C)0 LRNV426TDA(C)0 / LRNN426TDA(C)0 / LRNN422TDA(C)0 LRNV486TDA(C)0 / LRNN486TDA(C)0 / LRNN482TDA(C)0



# 5. Piping Diagrams



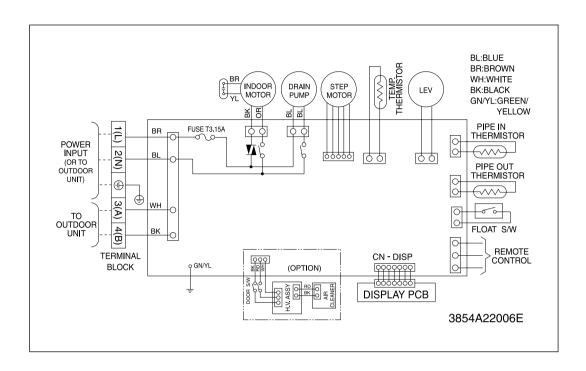
• : Thermistor

## Refrigerant pipe connection port diameter

[unit: mm(inch)]

		- , ,-
Model	Gas	Liquid
LRNV126TEA(C)0/LRNN126TEA(C)0/LRNV122TEA(C)0/LRNN122TEA(C)0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV186TEA(C)0/LRNN186TEA(C)0/LRNV182TEA(C)0/LRNN182TEA(C)0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV216TDA(C)0/LRNN216TDA(C)0/LRNV212TDA(C)0/LRNN212TDA(C)0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV246TDA(C)0/LRNN246TDA(C)0/LRNV242TDA(C)0/LRNN242TDA(C)0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV286TDA(C)0/LRNN286TDA(C)0/LRNV282TDA(C)0/LRNN282TDA(C)0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV366TDA(C)0/LRNN366TDA(C)0/LRNV362TDA(C)0/LRNN362TDA(C)0	Ø19.05(3/4)	Ø9.52(3/8)
LRNV386TDA(C)0/LRNN386TDA(C)0/LRNV382TDA(C)0/LRNN382TDA(C)0	Ø19.05(3/4)	Ø9.52(3/8)
LRNV426TDA(C)0/LRNN426TDA(C)0/LRNV422TDA(C)0/LRNN422TDA(C)0	Ø19.05(3/4)	Ø9.52(3/8)
LRNV486TDA(C)0/LRNN486TDA(C)0/LRNV482TDA(C)0/LRNN482TDA(C)0	Ø19.05(3/4)	Ø9.52(3/8)

# 6. Wiring Diagrams



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	WHITE	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR2	AC FAN MOTOR OUTPUT	YELLOW	MOTOR OUTPUT OF PHASE CONTROL
CN-D/PUMP	DRAIN PUMP OUTPUT	WHITE	AC OUTPUT FOR DRAIN PUMP
CN-COMM	COMMUNICATION	WHITE	CONNECTION BETWEEN INDOOR AND OUTDOOR
CN-DISP1	DISPLAY	BLUE	DISPLAY OF INDOOR STATUS
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-STEP/M1	STEP MOTOR	WHITE	STEP MOTOR OUTPUT
CN-FLOAT	FLOAT SWITCH INPUT	BLUE	FLOAT SWITCH SENSING
CN-PIPE	PIPE SENSOR	WHITE	PIPE THERMISTOR
CN-PIPE/O	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR
CN-ROOM	ROOM SENSOR	YELLOW	ROOM THERMISTOR
CN-REMO	REMOTE CONTROLLER	WHITE	REMOTE CONTROL LINE

# **Ceiling Concealed Duct Type (High static)**

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# 1. Specifi cations

# 1.1 50Hz

# 1.1.1 Cooling Only

Cooling Only (50Hz)

	Model	Unit	LRNV186BHA0	LRNV216BHA0	LRNV246BHA0
		W	5,300	6,200	7,000
Cooling Capacity	Cooling Capacity		4,557	5,331	6,019
		Btu/h	18,084	21,155	23,885
		W	-	-	-
Heating Capacity	У	kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W*H*D)	Rody	mm	882*260*450	882*260*450	882*260*450
Difficilisions (W 11 D)	Бойу	inch	34.7*10.2*17.7	34.7*10.2*17.7	34.6*0.2*17.7
Coil	Rows x Columns x FPI		3*10*21	3*10*21	3*10*21
	Face Area	m²	0.15	0.15	0.15
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	118	118	118
	Running Current	Α	0.92	0.92	0.92
Fan	Air Flow Rate(H/M/L)	cmm	15.3/13.6/10.3	15.8/13.9/10.7	16.0/14.1/11.1
		cfm	540/480/364	558/489/378	565/498/392
	External Static Pressure	Pa	78.5	78.5	78.5
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	25.4	25.4	25.4
Net Weight		kg(lbs)	34(74.9)	35(77.2)	35(77.2)
, , , , ,		dBA±3	39/36/34	39.5/37/34.5	40/38/35
Power Supply Ø / V / F		Ø/V/Hz	1 / 220~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	120/252	120/252	120/252

#### Notes:-

- 1. Capacities are based on the following conditions:
  - Cooling

     Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

     Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

### Cooling Only (50Hz)

	Model	Unit	LRNV286BGA0	LRNV366BGA0	LRNV386BGA0
		W	8,200	10,600	11,100
Cooling Capacity	/	kcal/h	7,052	9,116	9,544
0 ,		Btu/h	27,995	36,168	37,875
		W	-	-	-
Heating Capacity	У	kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (M/*LI*D)	Dody	mm	1182*298*450	1182*298*450	1182*298*450
Dimensions (W*H*D)	Бойу	inch	46.5*10.2*17.7	46.5*10.2*17.7	46.5*10.2*17.7
Coil	Rows x Columns x FPI		3*12*21	3*12*21	3*12*21
	Face Area	m²	0.26	0.26	0.26
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	272	272	272
	Running Current	Α	1.42	1.42	1.42
Fan	Air Flow Rate(H/M/L)	cmm	25.3/21.8/17.6	28.4/25.3/21.8	29.6/26.3/23.6
		cfm	893/770/622	1003/893/770	1045/930/833
	External Static Pressure	Pa	78.5	78.5	78.5
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(ID)	mm	25.0	25.0	25.0
Net Weight		kg(lbs)	38(83.8)	38(83.8)	38(83.8)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	42/40/38	44/42/40	46/44/42
117		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	95/191	95/191	95/191

#### Notes:-

Capacities are based on the following conditions:
 Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3412$ cfm = m<sup>3</sup>/min x 35.3

### Cooling Only (50Hz)

	Model	Unit	LRNV426BGA0	LRNV486BEA0
		W	12,300	14,100
Cooling Capacity	/	kcal/h	10,578	12,126
0 ,		Btu/h	41,992	48,137
		W	-	-
Heating Capacity	y	kcal/h	-	-
		Btu/h	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W*H*D)	Body	mm	1182*298*450	1230*370*680
, ,		inch	46.5*10.2*17.7	48.4*14.6*26.8
Coil	Rows x Columns x FPI		3*12*21	3*14*17
	Face Area	m²	0.26	0.43
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output	W	272	320
	Running Current	Α	1.42	4.00
Fan	Air Flow Rate(H/M/L)	cmm	32.0/28.4/27.2	40.0/36.2/32.6
		cfm	1130/1003/961	1412/1279/1151
	External Static Pressure	Pa	78.5	98.1
	Drive		Direct	Direct
	Speed control		Phase Control	Steps Control
Temperature Co			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(ID)	mm	25.4	25.4
Net Weight		kg(lbs)	38(83.8)	70(154.3)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	46/44/42	48/46/44
Power Supply Ø		Ø / V / Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Cont	rol		LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission ca		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	95/191	50/110

#### Notes:-

1. Capacities are based on the following conditions:

Cooling

• Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

• Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

## 1.1.2 Heat Pump

### Heat Pump (50Hz)

	Model	Unit	LRNN186BHA0	LRNN216BHA0	LRNN246BHA0
	MINUTE	W	5,300	6,200	7,000
Cooling Conneits		kcal/h	4,557	5,331	6,019
Cooling Capacity	/	Btu/h	18,084	21,155	23,885
		W Blu/II	<u>'</u>	-	, , , , , , , , , , , , , , , , , , ,
Haatina Osmasit			5,963	6,975	7,875
Heating Capacity	У	kcal/h	5,127	5,997	6,771
0 .		Btu/h	20,345	23,800	26,870
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W*H*D)	Body	mm	882*260*450	882*260*450	882*260*450
, ,		inch	34.7*10.2*17.7	34.7*10.2*17.7	34.7*10.2*17.7
Coil	Rows x Columns x FPI		3*10*21	3*10*21	3*10*21
	Face Area	m²	0.15	0.15	0.15
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	118	118	118
	Running Current	Α	0.92	0.92	0.92
Fan	Air Flow Rate(H/M/L)	cmm	15.3/13.6/10.3	15.8/13.9/10.7	16.0/14.1/11.1
		cfm	540/480/364	558/489/378	565/498/392
	External Static Pressure	Pa	78.5	78.5	78.5
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter	<u> </u>		-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
,	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø15.88(5/8)
•	Drain Pipe(ID)	mm	25.4	25.4	25.4
Net Weight	1-1/	kg(lbs)	34(74.9)	35(77.2)	35(77.2)
		dBA±3	39/36/34	39.5/37/34.5	40/38/35
Power Supply	,, <u>-</u> )	Ø / V / Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity		20/40ft	120/252	120/252	120/252
c.a.mig Quantity			5, _ 5_	0,_00	5, _ 5

#### Notes:-

1. Capacities are based on the following conditions:

- Cooling

   Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

   Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

### Heat Pump (50Hz)

	Model	Unit	LRNN286BGA0	LRNN366BGA0	LRNN386BGA0
		W	8,200	10,600	11,100
Cooling Capacity	У	kcal/h	7,052	9,116	9,544
		Btu/h	27,995	36,168	37,875
		W	9,225	11,925	12,487
Heating Capacity	y	kcal/h	7,934	10,253	10,737
		Btu/h	31,494	40,689	42,607
Casing		•	Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (M*H*D)	Dody	mm	1182*298*450	1182*298*450	1182*298*450
Dimensions (W*H*D)	Бойу	inch	46.5*10.2*17.7	46.5*10.2*17.7	46.5*10.2*17.7
Coil	Rows x Columns x FPI		3*12*21	3*12*21	3*12*21
	Face Area	m²	0.26	0.26	0.26
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	272	272	272
	Running Current	Α	1.42	1.42	1.42
Fan	Air Flow Rate(H/M/L)	cmm	25.3/21.8/17.6	28.4/25.3/21.8	29.6/26.3/23.6
		cfm	893/770/622	1003/893/770	1045/930/833
	External Static Pressure	Pa	78.5	78.5	78.5
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(ID)	mm	25.4	25.4	25.4
Net Weight	•	kg(lbs)	38(83.8)	38(83.8)	38(83.8)
Noise Level (Sound Press,1.5m, H/M/L) dBA±3		dBA±3	42/40/38	44/42/40	46/44/42
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Cont	trol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	95/191	95/191	95/191

#### Notes:-

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

### Heat Pump (50Hz)

	Model	Unit	LRNN426BGA0	LRNN486BEA0
		W	12,300	14,100
Cooling Capacity	1	kcal/h	10,578	12,126
		Btu/h	41,992	48,137
		W	13,838	15,863
<b>Heating Capacity</b>	/	kcal/h	11,040	13,156
		Btu/h	43,829	54,156
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (\/\/*\  *D\	Dodu	mm	1182*298*450	1230*370*680
Dimensions (W*H*D)	Воау	inch	46.5*10.2*17.7	48.4*14.6*26.8
Coil	Rows x Columns x FPI		3*12*21	3*14*17
	Face Area	m²	0.26	0.43
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output	W	272	320
	Running Current	Α	1.42	4.00
Fan	Air Flow Rate(H/M/L)	cmm	32.0/28.4/27.2	40.0/36.2/32.6
		cfm	1130/1003/961	1412/1279/1151
	External Static Pressure	Pa	78.5	98.1
	Drive		Direct	Direct
	Speed control		Phase Control	Steps Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation M	aterial	Foamed polystrene	Foamed polystrene
Air Filter			-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(ID)	mm	25.4	25.4
Net Weight		kg(lbs)	38(83.8)	70(154.3)
Noise Level (Sou	ind Press,1.5m, H/M/L)	dBA±3	46/44/42	48/46/44
Power Supply	,	Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Cont	rol		LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	95/191	50/110

#### Notes:-

1. Capacities are based on the following conditions:

Cooling

• Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

• Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB Interconnecting Piping Length 7.5m

  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

# 1.2 60Hz

## 1.2.1 Cooling Only

# Cooling Only (60Hz)

	Model	Unit	LRNV182BHA0	LRNV212BHA0	LRNV242BHA0
		W	5,300	6,200	7,000
Cooling Capacity	<b>y</b>	kcal/h	4,557	5,331	6,019
		Btu/h	18,084	21,155	23,885
		W	-	-	-
Heating Capacity	y	kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (\M*\H*D)	Pody	mm	882*260*450	882*260*450	882*260*450
Dimensions (W*H*D)	bouy	inch	34.7*10.2*17.7	34.7*10.2*17.7	34.7*10.2*17.7
Coil	Rows x Columns x FPI		3*10*21	3*10*21	3*10*21
	Face Area	m²	0.15	0.15	0.15
	Туре	•	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	118	118	118
	Running Current	Α	1.22	1.22	1.22
Fan	Air Flow Rate(H/M/L)	cmm	15.3/13.6/10.3	15.8/13.9/10.7	16.0/14.1/11.1
		cfm	540/480/364	558/489/378	565/498/392
	External Static Pressure	Pa	78.5	78.5	78.5
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	25.4	25.4	25.4
Net Weight		kg(lbs)	34(74.9)	35(77.2)	35(77.2)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	39/36/34	39.5/37/34.5	40/38/35
Power Supply Ø		Ø / V / Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	120/252	120/252	120/252

- 1. Capacities are based on the following conditions:
  - Cooling

     Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

     Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

### Cooling Only (60Hz)

	Model	Unit	LRNV282BGA0	LRNV362BGA0	LRNV382BGA0
			8,200	10,600	11,100
Cooling Capacity	/	kcal/h	7,052	9,116	9,544
		Btu/h	27,995	36,168	37,875
		W	-	-	-
Heating Capacity	У	kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W*H*D)	Pody	mm	1182*298*450	1182*298*450	1182*298*450
Dimensions (W H D)	Бойу	inch	46.5*10.2*17.7	46.5*10.2*17.7	46.5*10.2*17.7
Coil	Rows x Columns x FPI		3*12*21	3*12*21	3*12*21
	Face Area	m²	0.26	0.26	0.26
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	177	177	272
	Running Current	Α	1.68	1.68	1.68
Fan	Air Flow Rate(H/M/L)	cmm	25.3/21.8/17.6	28.4/25.3/21.8	29.6/26.3/23.6
		cfm	893/770/622	1003/893/770	1045/930/833
	External Static Pressure	Pa	78.5	78.5	78.5
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(ID)	mm	25.4	25.4	25.4
Net Weight		kg(lbs)	38(83.8)	38(83.8)	38(83.8)
Noise Level (Sound Press, 1.5m, H/M/L) dBA		dBA±3	42/40/38	44/42/40	46/44/42
Power Supply Ø / V / Hz		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	95/191	95/191	95/191

#### Notes:-

Capacities are based on the following conditions:
 Cooling
 • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
 • Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
 • Interconnecting Piping Length 7.5m

- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3412$ cfm = m<sup>3</sup>/min x 35.3

### Cooling Only (60Hz)

	Model	Unit	LRNV422BGA0	LRNV482BEA0
		W	12,300	14,100
Cooling Capacity	/	kcal/h	10,578	12,126
		Btu/h	41,992	48,137
		W	-	-
<b>Heating Capacity</b>	У	kcal/h	-	-
		Btu/h	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensione (M*H*D)	Dody	mm	1182*298*450	1230*370*680
Dimensions (W*H*D)	Бойу	inch	46.5*10.2*17.7	48.4*14.6*26.8
Coil	Rows x Columns x FPI		3*12*21	3*14*17
	Face Area	m²	0.26	0.43
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output	W	272	320
	Running Current	Α	1.68	4.00
Fan	Air Flow Rate(H/M/L)	cmm	32.0/28.4/27.2	40.0/36.2/32.6
		cfm	1130/1003/961	1412/1279/1151
	External Static Pressure	Pa	78.5	98.1
	Drive		Direct	Direct
	Speed control		Phase Control	Steps Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation M	aterial	Foamed polystrene	Foamed polystrene
Air Filter			-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
-	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)
•	Drain Pipe(ID)	mm	25.4	25.4
Net Weight		kg(lbs)	38(83.8)	70(154.3)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	46/44/42	48/46/44
Power Supply	,	Ø / V / Hz	1 / 220 / 60	1 / 220 / 60
Refrigerant Cont	rol		LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	95/191	50/110

- 1. Capacities are based on the following conditions:
  - Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
    - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
       Interconnecting Piping Length 7.5m

    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

## 1.1.2 Heat Pump

Heat Pump (60Hz)

	Model	Unit	LRNN182BHA0	LRNN212BHA0	LRNN242BHA0
		W	5,300	6,200	7,000
Cooling Capacity	У	kcal/h	4,557	5,331	6,019
		Btu/h	18,084	21,155	23,885
		W	5,963	6,975	7,875
Heating Capacit	y	kcal/h	5,127	5,997	6,771
		Btu/h	20,345	23,800	26,870
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (M/*U*D)	Dody	mm	882*260*450	882*260*450	882*260*450
Dimensions (W*H*D)	Воду	inch	34.7*10.2*17.7	34.7*10.2*17.7	34.7*10.2*17.7
Coil	Rows x Columns x FPI	•	3*10*21	3*10*21	3*10*21
	Face Area	m²	0.15	0.15	0.15
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	118	118	118
	Running Current	Α	1.22	1.22	1.22
Fan	Air Flow Rate(H/M/L)	cmm	15.3/13.6/10.3	15.8/13.9/10.7	16.0/14.1/11.1
		cfm	540/480/364	558/489/378	565/498/392
	External Static Pressure	Pa	78.5	78.5	78.5
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbin	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter	_		-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	25.4	25.4	25.4
Net Weight		kg(lbs)	34(74.9)	35(77.2)	35(77.2)
Noise Level (Sou	und Press,1.5m, H/M/L)	dBA±3	39/36/34	39.5/37/34.5	40/38/35
Power Supply Ø / V / Hz		1 / 220 / 60	1 / 220 / 60	1 / 220 / 60	
Refrigerant Cont	trol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	120/252	120/252	120/252

#### Notes:-

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating

   Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

   Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

**Conversion Formula** 

#### Heat Pump (60Hz)

	Model	Unit	LRNN282BGA0	LRNN362BGA0	LRNN382BGA0
		W	8,200	10,600	11,100
Cooling Capacity	/	kcal/h	7,052	9,116	9,544
		Btu/h	27,995	36,168	37,875
		W	9,225	11,925	12,487
Heating Capacity	y	kcal/h	7,934	10,253	10,737
		Btu/h	31,494	40,689	42,607
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W*H*D)	Pody	mm	1182*298*450	1182*298*450	1182*298*450
	Бойу	inch	46.5*10.2*17.7	46.5*10.2*17.7	46.5*10.2*17.7
Coil	Rows x Columns x FPI		3*12*21	3*12*21	3*12*21
	Face Area	m²	0.26	0.26	0.26
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	177	177	272
	Running Current	Α	1.68	1.68	1.68
Fan	Air Flow Rate(H/M/L)	cmm	25.3/21.8/17.6	28.4/25.3/21.8	29.6/26.3/23.6
		cfm	893/770/622	1003/893/770	1045/930/833
	External Static Pressure	Pa	78.5	78.5	78.5
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co			Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(ID)	mm	25.4	25.4	25.4
Net Weight	Net Weight		38(83.8)	38(83.8)	38(83.8)
Noise Level (Sound Press,1.5m, H/M/L) dBA±3			42/40/38	44/42/40	46/44/42
Power Supply Ø / V / Hz		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Cont	rol		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	95/191	95/191	95/191

#### Notes:-

1. Capacities are based on the following conditions:

- Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
  - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### Conversion Formula

#### Heat Pump (60Hz)

Model		Unit	LRNN422BGA0	LRNN482BEA0
Cooling Capacity		W	12,300	14,100
		kcal/h	10,578	12,126
		Btu/h	41,992	48,137
		W	13,838	15,863
Heating Capacity		kcal/h	11,040	13,156
		Btu/h	43,829	54,156
Casing			Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (M*H*D)			1182*298*450	1230*370*680
Dimensions (W*H*D) Body		inch	46.5*10.2*17.7	48.4*14.6*26.8
Coil	Rows x Columns x FPI		3*12*21	3*14*17
	Face Area	m²	0.26	0.43
	Туре		Sirocco Fan	Sirocco Fan
	Motor Output	W	272	320
	Running Current	Α	1.68	4.00
Fan	Air Flow Rate(H/M/L)	cmm	32.0/28.4/27.2	40.0/36.2/32.6
		cfm	1130/1003/961	1412/1279/1151
	External Static Pressure	Pa	78.5	98.1
	Drive		Direct	Direct
	Speed control		Phase Control	Steps Control
Temperature Control			Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing Thermal Insulation Material			Foamed polystrene	Foamed polystrene
Air Filter			-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)
	Drain Pipe(ID)	mm	25.4	25.4
Net Weight		kg(lbs)	38(83.8)	70(154.3)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	46/44/42	48/46/44
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60
Refrigerant Control			LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission cable		mm² 20/40ft	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Stuffing Quantity   Without S/parts		95/191	50/110

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

### **Conversion Formula**

# 2. Functions

# **Indoor Unit** Operation ON/OFF by Remote controller Sensing the Room Temperature Room temperature sensor. (Thermistor) Room temperature control • Maintains the room temperature in accordance with the Setting Temperature. **Starting Current Control** Indoor fan is delayed for 5 seconds at the starting. • Restarting is inhibited for approx. 3 minutes. **Time Delay Safety Control** • High, Med, Low **Indoor Fan Speed Control** • Intermittent operation of fan at low speed. **Soft Dry Operation Mode** • Although the air-conditioner is turned off by a power failure, it is restarted auto-**Auto Restart** matically previous operation mode after power supply. • Both the indoor and outdoor fan stops during defrosting. Deice (defrost) control (Heating) • Hot start after defrost ends. The indoor fan does not rotate until the evaporator piping **Hot-start Control (Heating)** temperature reaches 25°C. High head height Drain pump • A standard drain-head height of up to 700mm is possible. • It is operating individually or totally by central control function. **Central Control(Optional)** • Both the indoor and outdoor fan stops during defrosting. Defrost(Deice) control (Heating) • The indoor fan stops until the evaporator pipe temperature will be reached **Hot-start Control (Heating)** at 28°C.

# 3. Operation Details

# (1) The function of main control

# **■** Time Delay safety Control

• 30sec··· The 4-way valve is ceased for 30sec. to prevent the refrigerant-gas abnormal noise when the Heating operation is OFF or switched to the other operation mode while compress is off.

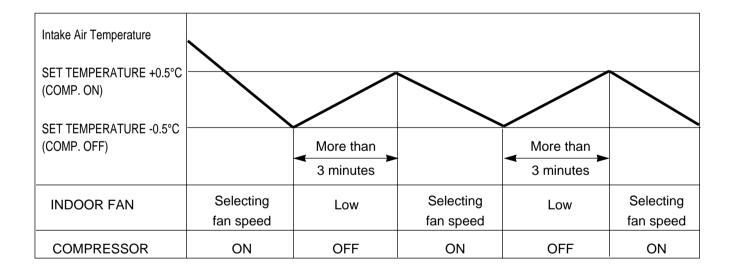
While compressor is running, it takes 3~5 seconds to switch to another mode.

# **■** Soft-Dry Operation

• The indoor fan speed is automatically set to the low, so the shift of the indoor fan speed is impossible because of already being set to the best speed for Dry Operation by microcontroller control.

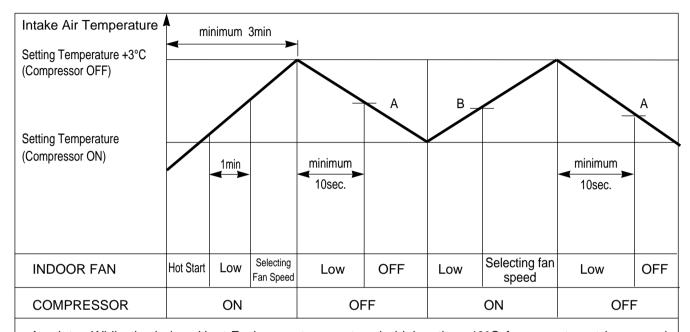
# **■** Cooling Mode Operation

• When selecting the Cooling(\*) Mode Operation, the unit will operate according to the setting by the remote controller and the operation diagram is as following.



# **■** Heating Mode Operation

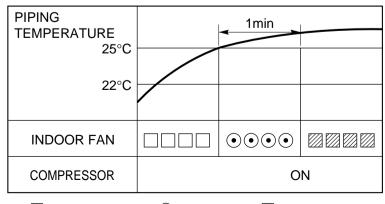
The unit will operate according to the setting by the remote controller and the operation diagram is shown as following.



- A point; While the indoor Heat-Exchanger temperature is higher than 40°C fan operates at low speed, when it becomes lower than 40°C fan stops.
- B point; When the indoor Heat-Exchanger temperature is higher than 42°C, fan operates at seleted fan speed, when it becomes lower than 39°C, the fan operates at low speed.

#### ■ Hot-Start Control

- The indoor fan does not rotate until the evaporator piping temperature reaches 25°C.
- The operation diagram is as following.



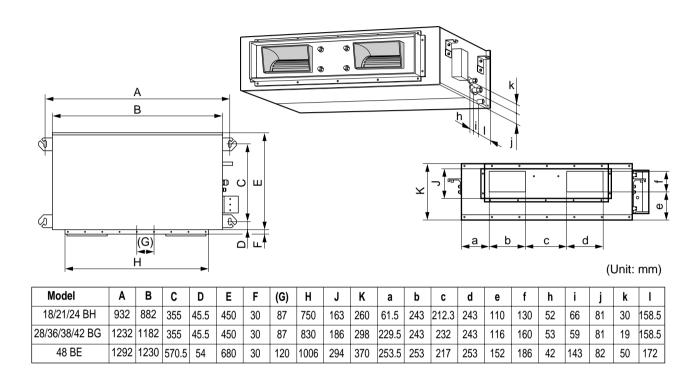
: Selected Fan

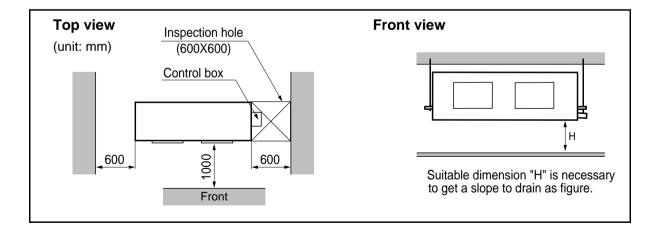
● : Low Fan

🗌 : Fan Stop

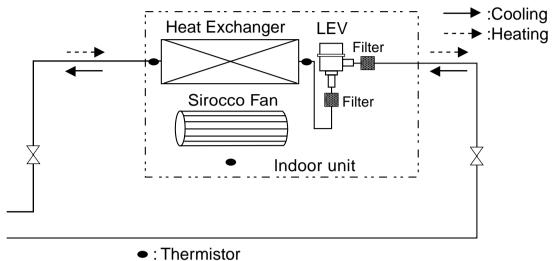
# 4. Dimensional Drawings

LRNV186BHA0/LRNN186BHA0/LRNV182BHA0/LRNN182BHA0 LRNV216BHA0/LRNN216BHA0/LRNV212BHA0/LRNN212BHA0 LRNV246BHA0/LRNN246BHA0/LRNV242BHA0/LRNN242BHA0 LRNV286BGA0/LRNN286BGA0/LRNV282BGA0/LRNN282BGA0 LRNV366BGA0/LRNN366BGA0/LRNV362BGA0/LRNN362BGA0 LRNV386BGA0/LRNN386BGA0/LRNV382BGA0/LRNN382BGA0 LRNV426BGA0/LRNN426BGA0/LRNV422BGA0/LRNN422BGA0 LRNV486BEA0/LRNN486BEA0/LRNV482BEA0/LRNN482BEA0





# 5. Piping Diagrams



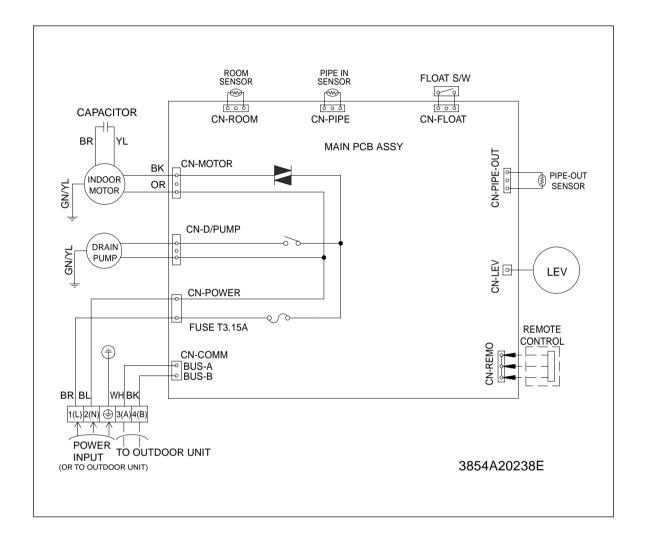
### Refrigerant pipe connection port diameter

[unit: mm(inch)]

MODEL	GAS	LIQUID
LRNV186BHA0/LRNN186BHA0/LRNV182BHA0/LRNN182BHA0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV216BHA0/LRNN216BHA0/LRNV212BHA0/LRNN212BHA0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV246BHA0/LRNN246BHA0/LRNV242BHA0/LRNN242BHA0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV286BGA0/LRNN286BGA0/LRNV282BGA0/LRNN282BGA0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV366BGA0/LRNN366BGA0/LRNV362BGA0/LRNN362BGA0	Ø19.05(3/4)	Ø9.52(3/8)
LRNV386BGA0/LRNN386BGA0/LRNV382BGA0/LRNN382BGA0	Ø19.05(3/4)	Ø9.52(3/8)
LRNV426BGA0/LRNN426BGA0/LRNV422BGA0/LRNN422BGA0	Ø19.05(3/4)	Ø9.52(3/8)
LRNV486BEA0/LRNN486BEA0/LRNV482BEA0/LRNN482BEA0	Ø19.05(3/4)	Ø9.52(3/8)

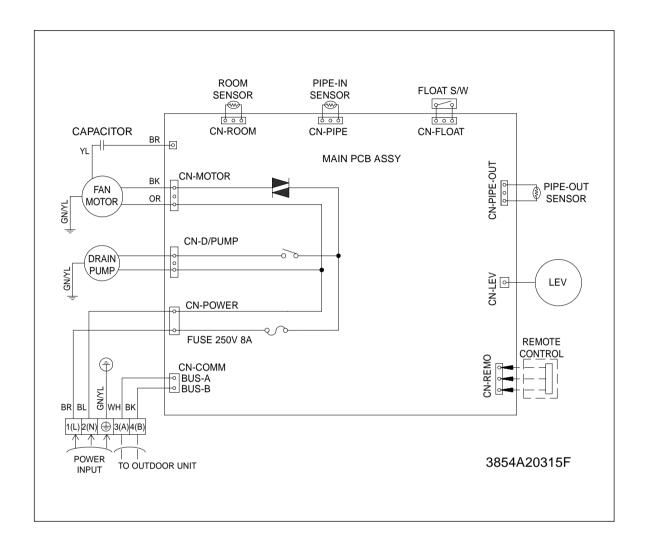
# 6. Wiring Diagrams

#### **BH Chassis**



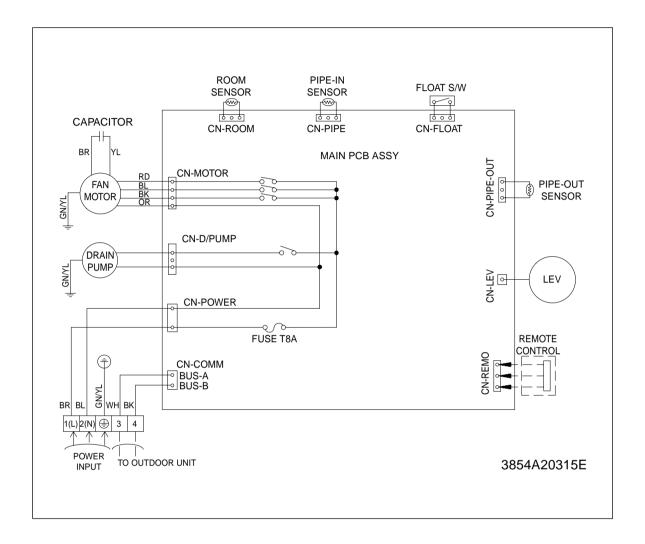
CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	WHITE	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR2	AC FAN MOTOR OUTPUT	YELLOW	MOTOR OUTPUT OF PHASE CONTROL
CN-D/PUMP	DRAIN PUMP OUTPUT	WHITE	AC OUTPUT FOR DRAIN PUMP
CN-COMM	COMMUNICATION	WHITE	CONNECTION BETWEEN INDOOR AND OUTDOOR
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-FLOAT	FLOAT SWITCH INPUT	BLUE	FLOAT SWITCH SENSING
CN-PIPE	PIPE SENSOR	WHITE	PIPE THERMISTOR
CN-PIPE/O	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR
CN-ROOM	ROOM SENSOR	YELLOW	ROOM THERMISTOR
CN-REMO	REMOTE CONTROLLER	WHITE	REMOTE CONTROL LINE

#### **BG Chassis**



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	WHITE	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR2	AC FAN MOTOR OUTPUT	YELLOW	MOTOR OUTPUT OF PHASE CONTROL
CN-D/PUMP	DRAIN PUMP OUTPUT	WHITE	AC OUTPUT FOR DRAIN PUMP
CN-COMM	COMMUNICATION	WHITE	CONNECTION BETWEEN INDOOR AND OUTDOOR
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-FLOAT	FLOAT SWITCH INPUT	BLUE	FLOAT SWITCH SENSING
CN-PIPE	PIPE SENSOR	WHITE	PIPE THERMISTOR
CN-PIPE/O	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR
CN-ROOM	ROOM SENSOR	YELLOW	ROOM THERMISTOR
CN-REMO	REMOTE CONTROLLER	WHITE	REMOTE CONTROL LINE
CN-INFANSUB	STARTING SIGNAL CONTROL	WHITE	STARTING SIGNAL CONTROL

#### **BE Chassis**



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	WHITE	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR	AC FAN MOTOR OUTPUT	WHITE	MOTOR OUTPUT OF PHASE CONTROL
CN-D/PUMP	DRAIN PUMP OUTPUT	WHITE	AC OUTPUT FOR DRAIN PUMP
CN-COMM	COMMUNICATION	WHITE	CONNECTION BETWEEN INDOOR AND OUTDOOR
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-FLOAT	FLOAT SWITCH INPUT	BLUE	FLOAT SWITCH SENSING
CN-PIPE	PIPE SENSOR	WHITE	PIPE THERMISTOR
CN-PIPE/O	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR
CN-ROOM	ROOM SENSOR	YELLOW	ROOM THERMISTOR
CN-REMO	REMOTE CONTROLLER	WHITE	REMOTE CONTROL LINE

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## **Ceiling Concealed Duct Type (Low static)**

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## 1. Specifications

### 1.1 50Hz

#### 1.1.1 Cooling Only

Cooling Only (50Hz)

Model		Unit	LRNV076BTG(Q)0	LRNV096BTG(Q)0	LRNV126BTG(Q)0
		W	2,100	2,600	3,500
Cooling Capacity	/	kcal/h	1,806	2,235	3,009
		Btu/h	7,165	8,871	11,942
		W	-	-	-
Heating Capacity	/	kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (\M*\H*D)	Pody	mm	708*230*537	708*230*537	708*230*537
Dimensions (W*H*D)	Бойу	inch	28*9.1*21.2	28*9.1*21.2	28*9.1*21.2
Coil	Rows x Columns x FPI		2*12*18	2*12*18	2*12*18
	Face Area	m²	0.12	0.12	0.12
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	40	40	40
	Running Current	Α	0.30	0.30	0.30
Fan	Air Flow Rate(H/M/L)	cmm	8.7/7.5/6.2	9.5/ 8.7 / 7.5	10.6/ 9.5 / 8.7
		cfm	307/265/219	336/307/265	375/336/307
	External Static Pressure	Pa	19.6	19.6	19.6
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
Drain Pipe(ID)		mm	25.4	25.4	25.4
Net Weight		kg(lbs)	25(55.1)	25(55.1)	25(55.1)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	35/33/31	36/34/32	37/35/33
117		Ø / V / Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
	Refrigerant Control		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	172/356	172/356	172/356

- 1. Capacities are based on the following conditions:
  - Cooling

     Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

     Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

Conversion Formula

#### 1.1.2 Heat Pump

#### Heat Pump (50Hz)

Model		Unit	LRNN076BTG(Q)0	LRNN096BTG(Q)0	LRNN126BTG(Q)0
	Cooling Capacity		2,100	2,600	3,500
Cooling Capacity			1,806	2,235	3,009
		Btu/h	7,165	8,871	11,942
		W	2,363	2,925	3,938
Heating Capacity	/	kcal/h	2,031	2,515	3,385
		Btu/h	8,061	9,980	13,435
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W*H*D)	Pody	mm	708*230*537	708*230*537	708*230*537
Difficusions (W H D)	Бойу	inch	28*9.1*21.2	28*9.1*21.2	28*9.1*21.2
Coil	Rows x Columns x FPI		2*12*18	2*12*18	2*12*18
	Face Area	m²	0.12	0.12	0.12
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	40	40	40
	Running Current	Α	0.30	0.30	0.30
Fan	Air Flow Rate(H/M/L)	cmm	8.7/7.5/6.2	9.5/ 8.7 / 7.5	10.6/ 9.5 / 8.7
		cfm	307/265/219	336/307/265	375/336/307
	External Static Pressure	Pa	19.6	19.6	19.6
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections		mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(ID)	mm	25.4	25.4	25.4
Net Weight			25(55.1)	25(55.1)	25(55.1)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	35/33/31	36/34/32	37/35/33
117		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	172/356	172/356	172/356

#### Notes:-

1. Capacities are based on the following conditions:

Cooling

• Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

• Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### Conversion Formula

### 1.2 60Hz

### 1.2.1 Cooling Only

Cooling Only (60Hz)

	Model	Unit	LRNV072BTG(Q)0	LRNV092BTG(Q)0	LRNV122BTG(Q)0
	Cooling Capacity		2,100	2,600	3,500
Cooling Capacity			1,806	2,235	3,009
	•	Btu/h	7,165	8,871	11,942
		W	-	-	-
Heating Capacit	у	kcal/h	-	-	-
		Btu/h	-	-	-
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W*H*D)	Rody	mm	708*230*537	708*230*537	708*230*537
Dillielisions (W 11 D)	ьошу	inch	28*9.1*21.2	28*9.1*21.2	28*9.1*21.2
Coil	Rows x Columns x FPI		2*12*18	2*12*18	2*12*18
	Face Area	m²	0.12	0.12	0.12
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	40	40	40
	Running Current	Α	0.30	0.30	0.30
Fan	Air Flow Rate(H/M/L)	cmm	8.7/7.5/6.2	9.5/ 8.7 / 7.5	10.6/ 9.5 / 8.7
		cfm	307/265/219	336/307/265	375/336/307
	External Static Pressure	Pa	19.6	19.6	19.6
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor		Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections		mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
Drain Pipe(ID)		mm	25.4	25.4	25.4
Net Weight		kg(lbs)	25(55.1)	25(55.1)	25(55.1)
	und Press,1.5m, H/M/L)	dBA±3	35/33/31	36/34/32	37/35/33
117		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
	Refrigerant Control		LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity	Without S/parts	20/40ft	172/356	172/356	172/356

- 1. Capacities are based on the following conditions:
  - Cooling

     Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

     Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

     Interconnecting Piping Length 7.5m

    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

#### 1.2.2 Heat Pump

#### Heat Pump (60Hz)

	Model	Unit	LRNN072BTG(Q)0	LRNN092BTG(Q)0	LRNN122BTG(Q)0
	WOUCH	W	2,100	2,600	3,500
0.01/0.000000/4			,	,	<u>'</u>
Cooling Capacity	y	kcal/h	1,806	2,235	3,009
		Btu/h	7,165	8,871	11,942
		W	2,363	2,925	3,938
Heating Capacity	У	kcal/h	2,031	2,515	3,385
		Btu/h	8,061	9,980	13,435
Casing			Galvanized Steel Plate	Galvanized Steel Plate	Galvanized Steel Plate
Dimensions (W*H*D)	Rody	mm	708*230*537	708*230*537	708*230*537
Dilliensions (W 11 D)	Бойу	inch	28*9.1*21.2	28*9.1*21.2	28*9.1*21.2
Coil	Rows x Columns x FPI		2*12*18	2*12*18	2*12*18
	Face Area	m²	0.12	0.12	0.12
	Туре		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output	W	40	40	40
	Running Current	Α	0.30	0.30	0.30
Fan	Air Flow Rate(H/M/L)	cmm	8.7/7.5/6.2	9.5/ 8.7 / 7.5	10.6/ 9.5 / 8.7
	,	cfm	307/265/219	336/307/265	375/336/307
	External Static Pressure	Pa	19.6	19.6	19.6
Drive			Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter	<u> </u>		-	-	-
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	_ ·	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
·	Drain Pipe(ID)	mm	25.4	25.4	25.4
Net Weight	1 ( /	kg(lbs)	25(55.1)	25(55.1)	25(55.1)
		dBA±3	35/33/31	36/34/32	37/35/33
		Ø / V / Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Control		LEV	LEV	LEV	
Power cable mm <sup>2</sup>		CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C	
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Stuffing Quantity		20/40ft	172/356	172/356	172/356
. 3					1

#### Notes:-

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  Interconnecting Piping Length 7.5m
- Level Difference of Zero

- + Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

### 2. Functions

#### **Indoor Unit** Operation ON/OFF by Remote controller **Sensing the Room Temperature** • Room temperature sensor. (Thermistor) Room temperature control • Maintains the room temperature in accordance with the Setting Temperature. Indoor fan is delayed for 5 seconds at the starting. **Starting Current Control** • Restarting is inhibited for approx. 3 minutes. **Time Delay Safety Control Indoor Fan Speed Control** • High, Med, Low **Soft Dry Operation Mode** • Intermittent operation of fan at low speed. • Although the air-conditioner is turned off by a power failure, it is restarted auto-**Auto Restart** matically previous operation mode after power supply. • Both the indoor and outdoor fan stops during defrosting. Deice (defrost) control (Heating) • Hot start after defrost ends. • The indoor fan does not rotate until the evaporator piping **Hot-start Control (Heating)** temperature reaches 25°C. High head height Drain pump • A standard drain-head height of up to 700mm is possible. • It is operating individually or totally by central control function. **Central Control(Optional)**

## 3. Operation Details

### (1) The function of main control

#### **■** Time Delay safety Control

• 30sec... The 4-way valve is ceased for 30sec. to prevent the refrigerant-gas abnormal noise when the Heating operation is OFF or switched to the other operation mode while compress is off.

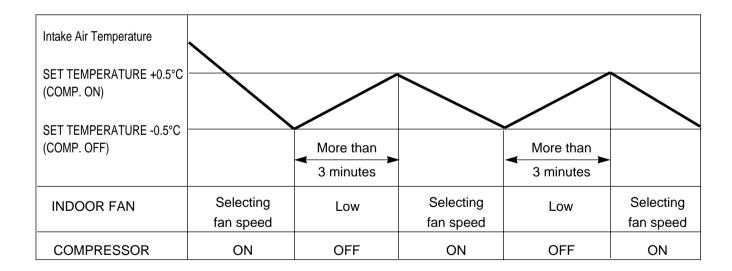
While compressor is running, it takes 3~5 seconds to switch to another mode.

#### **■** Soft-Dry Operation

• The indoor fan speed is automatically set to the low, so the shift of the indoor fan speed is impossible because of already being set to the best speed for Dry Operation by microcontroller control.

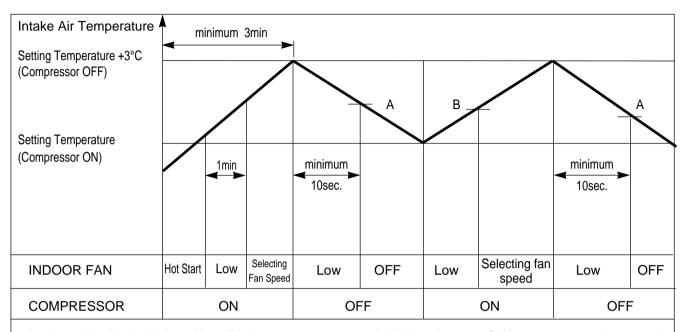
#### **■** Cooling Mode Operation

• When selecting the Cooling(\*) Mode Operation, the unit will operate according to the setting by the remote controller and the operation diagram is as following.



#### **■** Heating Mode Operation

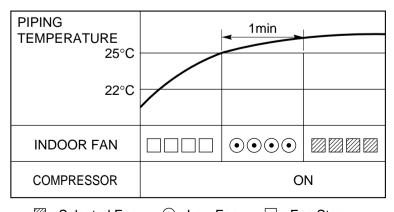
The unit will operate according to the setting by the remote controller and the operation diagram is shown as following.



- While the indoor Heat-Exchanger temperature is higher than 40°C fan operates at low speed, when it becomes lower than 40°C fan stops.
- B point; When the indoor Heat-Exchanger temperature is higher than 42°C, fan operates at seleted fan speed, when it becomes lower than 39°C, the fan operates at low speed.

#### ■ Hot-Start Control

- The indoor fan does not rotate until the evaporator piping temperature reaches 25°C.
- The operation diagram is as following.

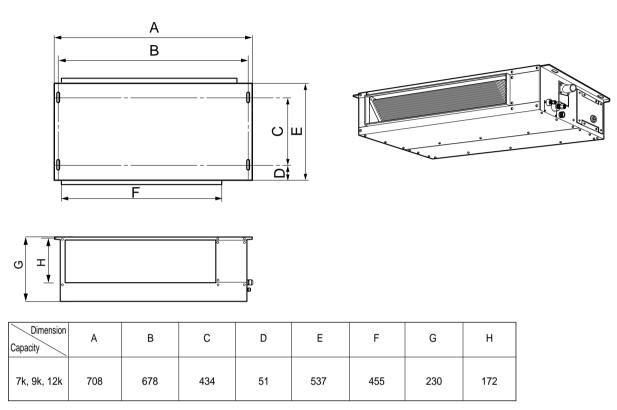


• : Low Fan

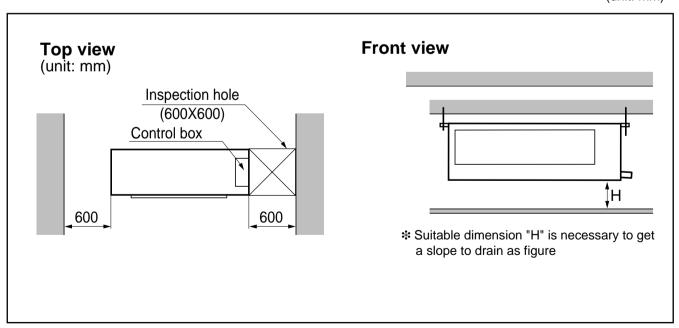
: Fan Stop

## 4. Dimensional Drawings

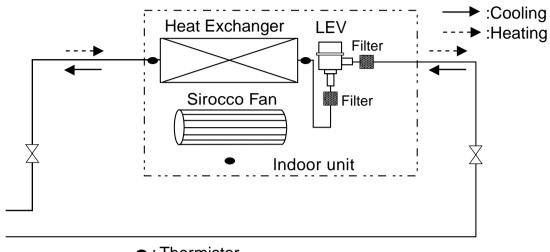
LRNV076BTG(Q)0/LRNN076BTG(Q)0/LRNV072BTG(Q)0/LRNN072BTG(Q)0 LRNV096BTG(Q)0/LRNN096BTG(Q)0/LRNV092BTG(Q)0/LRNN092BTG(Q)0 LRNV126BTG(Q)0/LRNN126BTG(Q)0/LRNV122BTG(Q)0/LRNN122BTG(Q)0



(unit: mm)



# 5. Piping Diagrams



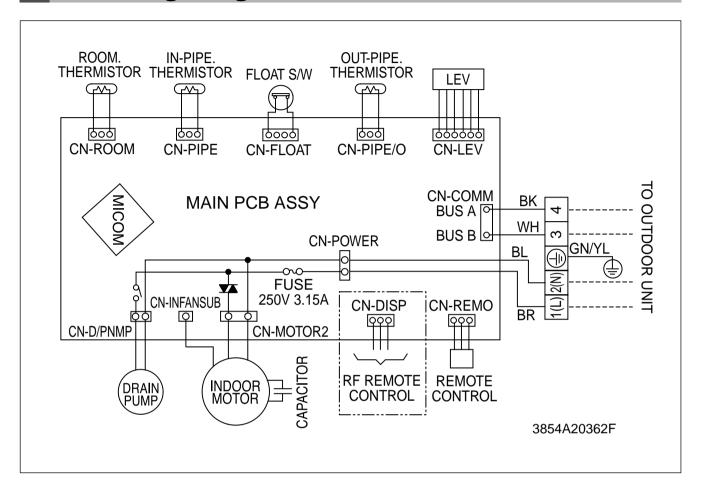
• : Thermistor

Refrigerant pipe connection port diameter

[unit: mm(inch)]

MODEL	GAS	LIQUID
LRNV076BTG(Q)0/LRNN076BTG(Q)0/LRNV072BTG(Q)0/LRNN072BTG(Q)0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV096BTG(Q)0/LRNN096BTG(Q)0/LRNV092BTG(Q)0/LRNN092BTG(Q)0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV126BTG(Q)0/LRNN126BTG(Q)0/LRNV122BTG(Q)0/LRNN122BTG(Q)0	Ø12.7(1/2)	Ø6.35(1/4)

## 6. Wiring Diagrams



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	WHITE	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR	AC FAN MOTOR OUTPUT	YELLOW	MOTOR OUTPUT OF PHASE CONTROL
CN-D/PUMP	DRAIN PUMP OUTPUT	WHITE	AC OUTPUT FOR DRAIN PUMP
CN-COMM	COMMUNICATION	WHITE	COMMUNICATION BETWEEN INDOOR AND OUTDOOR
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-FLOAT	FLOAT SWITCH INPUT	BLUE	FLOAT SWITCH SENSING
CN-PIPE	PIPE SENSOR	WHITE	PIPE THERMISTOR
CN-PIPE/O	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR
CN-ROOM	ROOM SENSOR	BLUE	ROOM THERMISTOR
CN-REMO	REMOTE CONTROLLER	WHITE	REMOTE CONTROL LINE

## **Convertible Type**

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## 1. Specifications

### 1.1 50Hz

#### 1.1.1 Cooling Only

Cooling Only (50Hz)

	Model	Unit	LRNV186VBA0	LRNV246VBA0
		W	5,300	7,000
Cooling Capacity	I	kcal/h	4,557	6,019
		Btu/h	18,084	23,885
		W	-	-
Heating Capacity	/	kcal/h	-	-
		Btu/h	-	-
Dimensions (M*H*D)	Pody	mm	Galvanized Steel Plate+Painting	Galvanized Steel Plate+Painting
Dimensions (W*H*D)	Бойу	inch	1200*615*205	1200*615*205
Coil	Rows x Columns x FPI		47.2*24.2*8.1	47.2*24.2*8.1
	Face Area	m <sup>2</sup>	2*12*18	2*12*18
	Туре		Cross Flow Fan	Cross Flow Fan
	Motor Output	W	27	32
	Running Current	Α	0.23	0.27
Fan	Air Flow Rate(H/M/L)	cmm	13.5/12/11	16.1/14/12
		cfm	477/424/389	569/495/424
	Drive		Direct	Direct
	Speed control		Phase Control	Phase Control
Temperature Co			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections		mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20.0	20.0
Net Weight		kg(lbs) dBA±3	17(37.5)	17(37.5)
	Noise Level (Sound Press,1.5m, H/M/L)		43/40/37	45/42/39
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Color			White	White
Stuffing Quantity	Without S/parts	20/40ft	102/219	102/219

#### Notes:-

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

Conversion Formula

Kcal/h= kW x 860 Btu/h = kW x 3412 cfm = m³/min x 35.3

#### 1.1.2Heat Pump

Heat Pump (50Hz)

	Model	Unit	LRNN186VBA0	LRNN246VBA0
		W	5,300	7,000
Cooling Capacity	1	kcal/h	4,557	6,019
		Btu/h	18,084	23,885
		W	5,963	7,875
Heating Capacity	/	kcal/h	5,127	6,771
		Btu/h	20,345	26,870
Dimensions (M*H*D)	Dody	mm	Galvanized Steel Plate+Painting	Galvanized Steel Plate+Painting
Dimensions (W*H*D)	Бойу	inch	1200*615*205	1200*615*205
Coil	Rows x Columns x FPI		47.2*24.2*8.1	47.2*24.2*8.1
	Face Area	m²	2*12*18	2*12*18
	Туре		Cross Flow Fan	Cross Flow Fan
	Motor Output	W	27	32
	Running Current	Α	0.23	0.27
Fan	Air Flow Rate(H/M/L)	cmm	13.5/12/11	16.1/14/12
		cfm	477/424/389	569/495/424
	Drive		Direct	Direct
	Speed control		Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20.0	20.0
Net Weight		kg(lbs)	17(37.5)	17(37.5)
Noise Level (Sound Press, 1.5m, H/M/L)		dBA±3	43/40/37	45/42/39
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission cable		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Color			White	White
Stuffing Quantity	Without S/parts	20/40ft	102/219	102/219

#### Notes:-

1. Capacities are based on the following conditions:

- Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
  - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

### 1.2 60Hz

#### 1.2.1 Cooling Only

Cooling Only (60Hz)

Model		Unit	LRNV182VBA0	LRNV242VBA0	
Cooling Capacity		W	5,300	7,000	
		kcal/h	4,557	6,019	
		Btu/h	18,084	23,885	
Heating Capacity		W	-	-	
		kcal/h	-	-	
		Btu/h	-	-	
B: : (A/(414B) B I		mm	Galvanized Steel Plate+Painting	Galvanized Steel Plate+Painting	
Dimensions (W*H*D)	Body	inch	1200*615*205	1200*615*205	
Coil	Rows x Columns x FPI		47.2*24.2*8.1	47.2*24.2*8.1	
	Face Area	m²	2*12*18	2*12*18	
	Туре		Cross Flow Fan	Cross Flow Fan	
	Motor Output	W	27	32	
	Running Current	Α	0.23	0.27	
Fan	Air Flow Rate(H/M/L)	cmm	13.5/12/11	16.1/14/12	
		cfm	477/424/389	569/495/424	
	Drive		Direct	Direct	
	Speed control		Phase Control	Phase Control	
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	
Sound Absorbing	Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	
	Drain Pipe(ID)	mm	20.0	20.0	
Net Weight		kg(lbs)	17(37.5)	17(37.5)	
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	43/40/37	45/42/39	
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	
Refrigerant Control			LEV	LEV	
		mm²	CV2.0 X 3C	CV2.0 X 3C	
Transmission cable		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	
Color			White	White	
Stuffing Quantity Without S/parts		20/40ft	102/219	102/219	

#### Notes:-

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

#### 1.2.2Heat Pump

Heat Pump (60Hz)

Model		Unit	LRNN182VBA0	LRNN242VBA0	
Cooling Capacity		W	5,300	7,000	
		kcal/h	4,557	6,019	
		Btu/h	18,084	23,885	
<u> </u>		W	5,963	7,875	
		kcal/h	5,127	6,771	
		Btu/h	20,345	26,870	
Dimensions (\M*H*D)	Dody	mm	Galvanized Steel Plate+Painting	Galvanized Steel Plate+Painting	
Dimensions (W*H*D)	Бойу	inch	1200*615*205	1200*615*205	
Coil	Rows x Columns x FPI		47.2*24.2*8.1	47.2*24.2*8.1	
	Face Area	m²	2*12*18	2*12*18	
	Туре		Cross Flow Fan	Cross Flow Fan	
	Motor Output	W	27	32	
	Running Current	Α	0.23	0.27	
Fan	Air Flow Rate(H/M/L)	cmm	13.5/12/11	16.1/14/12	
		cfm	477/424/389	569/495/424	
	Drive		Direct	Direct	
	Speed control		Phase Control	Phase Control	
Temperature Co			Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	
Safety Device			Fuse, Thermal Fuse for Fan Motor	Fuse, Thermal Fuse for Fan Motor	
·	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	
	Drain Pipe(ID)	mm	20.0	20.0	
Net Weight		kg(lbs)	17(37.5)	17(37.5)	
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	43/40/37	45/42/39	
Power Supply 9		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	
Refrigerant Control		LEV	LEV		
Power cable mr		mm²	CV2.0 X 3C	CV2.0 X 3C	
Transmission cable		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	
Color			White	White	
Stuffing Quantity Without S/parts		20/40ft	102/219	102/219	

#### Notes:-

1. Capacities are based on the following conditions:

- Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
  - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### Conversion Formula

## 2. Functions

#### **Indoor Unit**

#### Operation ON/OFF by Remote controller

#### **Sensing the Room Temperature**

• Room temperature sensor. (Thermistor)

#### Room temperature control

• Maintains the room temperature in accordance with the Setting Temperature.

#### **Starting Current Control**

Indoor fan is delayed for 5 seconds at the starting.

#### **Time Delay Safety Control**

• Restarting is inhibited for approx. 3 minutes.

#### **Indoor Fan Speed Control**

· High, Med, Low, Chaos

#### **Operation indication Lamps (LED)**

- () --- Lights up in operation
- ☆ --- Lights up in Sleep Mode
- --- Lights up in Timer Mode
- \* --- Lights up in Deice Mode or Hot Start Mode

#### **Soft Dry Operation Mode**

Intermittent operation of fan at low speed.

#### **Sleep Mode Auto Control**

- The fan is switched to low(Cooling), med(Heating) speed.
- The unit will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.

#### **Natural Air Control by CHAOS Logic**

- The fan is switched to intermittent or irregular operation
- The fan speed is automatically switched from high to low speed.

#### **Airflow Direction Control**

• The louver can be set at the desired position or swing up and down, right and left automatically.

#### **Auto Operation**

 The setting temperature, indoor fan speed and desired operation made are automatically set by fuzzy rule.

#### Deice (defrost) control (Heating)

- Both the indoor and outdoor fan stops during deicing.
- · Hot start after deice ends.

#### **Hot-start Control (Heating)**

 The indoor fan does not rotate until the evaporator piping temperature will be reached at 22°C.

## 3. Operation Details

### (1) The function of main control

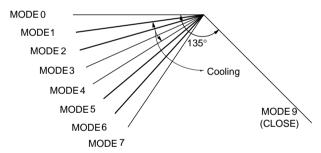
### **■** Time Delay Safety Control

- 3min··· The compressor is ceased for 3minutes to balance the pressure in the refrigeration cycle. (Protection of compressor)
- 5sec... Vertical air flow direction control louvers open in 5 seconds to prevent noise between louvers and wind.
- 30sec... The 4-way valve is ceased for 30sec. to prevent the refrigerant-gas abnormal noise when the Heating operation is OFF or switched to the other operation mode while compress is off.

  While compressor is running, it takes 3~5 seconds to switch.

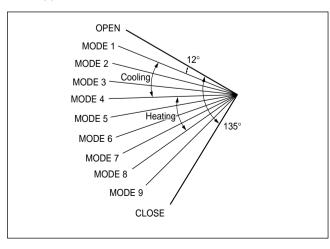
#### **■** Airflow Direction Control

- This function is to swing the louver up and down automatically and to set it at the desired position.
- The procedure is as the following.
  - 1st ; Press the ON/OFF Button to operate the product.
  - 2nd; Press the Airflow Direction Control Button to swing the louver up and down automatically.
  - 3nd ; Repress the Airflow Direction Control Button to set the louver as the desired position.

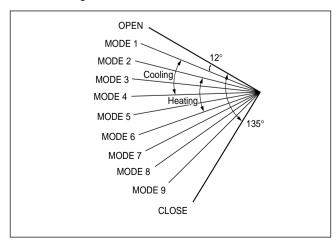


### For Heating Model

 Airflow direction control figure when installed on the floor.

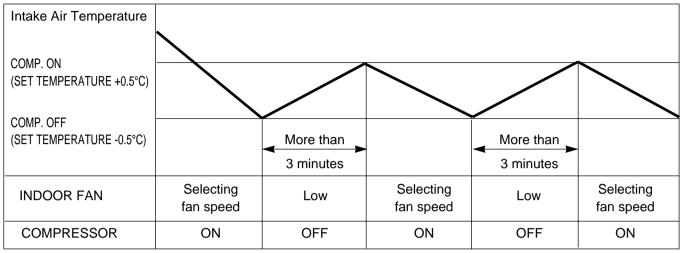


 Airflow direction control figure when installed under the ceiling.



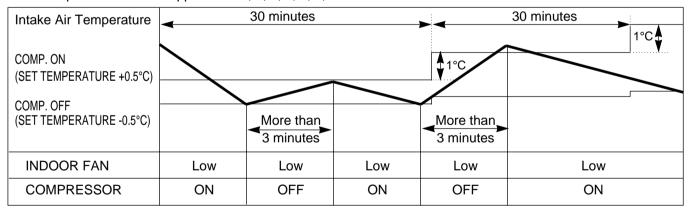
#### **■** Cooling Mode Operation

• When selecting the Cooling(常) Mode Operation, the unit will operate according to the setting by the remote controller and the operation diagram is as following

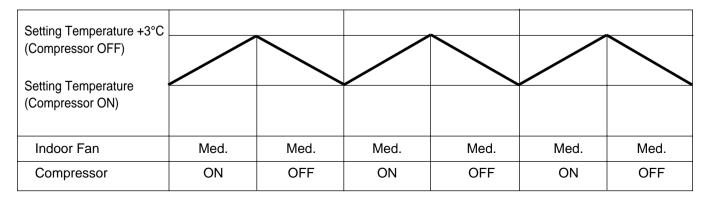


#### **■** Cooling or Heating Mode with Sleep Mode Auto Operation

- When selecting the Cooling(¾≰) or the Heating(-☆-) combined with the Sleep Mode Auto Operation(♠), the operation diagram is as following.
- Cooling Mode with the Sleep Mode
- The setting temperature will be raised by 1°C 30minutes later and by 2°C 1 hour later.
- The operation will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.



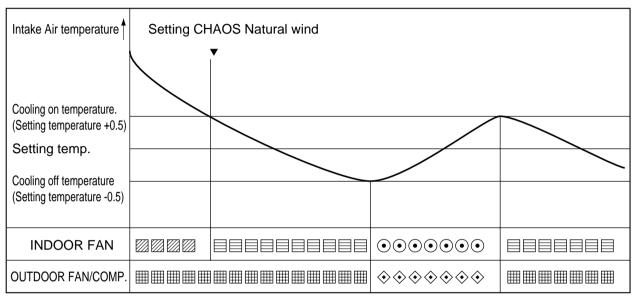
- Heating Mode with the Sleep Mode.
- The operation will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.



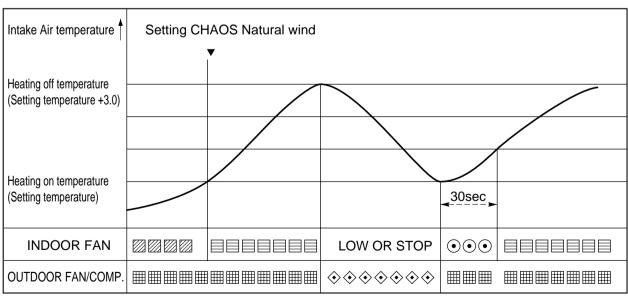
#### ■ Natural wind by CHAOS logic



For more fresh feeling than other fan speed mode, press the indoor fan Speed Selector and set to CHAOS mode. In this mode, the wind blows like natural breeze by automatically changing fan speed according to the CHAOS logic.



GRAPH of Natural wind by the CHAOS logic (During Cooling operation)

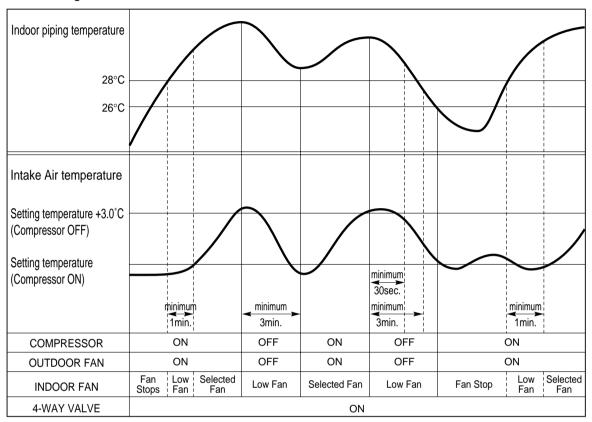


GRAPH of Natural wind by the CHAOS logic (During Heating operation)

#### **■** Heating Mode Operation

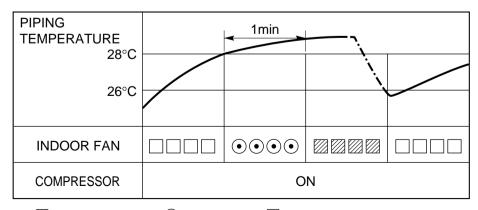
The unit will operate according to the setting by the remote controller and the operation diagram is shown as following.

#### • For Heating Model



#### **■** Hot-Start Control

- The indoor fan does not rotate until the evaporator piping temperature will be reached to 22℃.
- During heating operation, if piping temperature falls below 28°C fan stops.
- The operation diagram is as following.



: Selected Fan

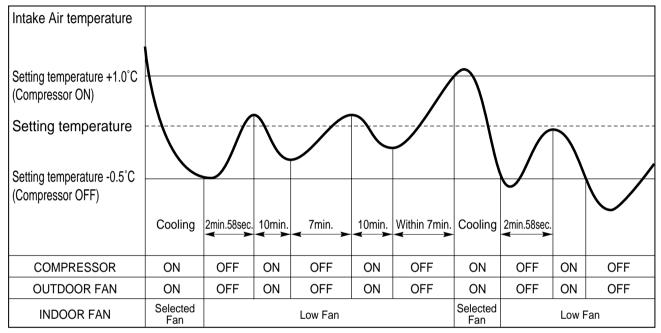
• : Low Fan

: Fan Stop

#### ■ Soft Dry Operation

- During Soft Dry Operation, the compressor ON temperature is the setting temperature plus 1°C, the compressor OFF temperature is the setting temperature minus 0.5°C.
- When the room temperature rises over the compressor ON temperature, the operation mode is switched to the cooling mode.
- When the room temperature falls between the compressor ON temperature and OFF temperature, the operation mode is switched to the Soft Dry Operation.

  In this temperature range, 10min. Dry Operation, 7min operation OFF. During 10min Dry operation, if the room
- temperature falls below compressor OFF temperature, Compressor OFF.
- In dehumidify mode, control of fan speed is as following.

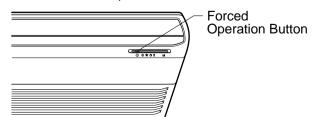


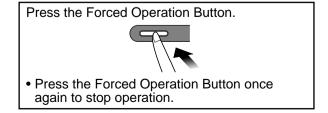
### **■** Forced operation

- If you lose wireless remote controller, you can operate the unit with forced operation switch.
- The standard conditions are as following.

	Room Temperature ≥ 24°C	21°C ⟨Room Temperature ≤24°C	Room Temperature 〈21°C
Operation Mode	Cooling	Soft Dry	Heating
FAN Speed	FAN Speed High Soft Dry F		High
Setting Temperature	22°C	Air Intake Temperature	24°C

• Unit operates in low fan mode for first 15 seconds, then switched to proper operation mode according to intake Air temperature.





#### ■ Protection of the evaporator pipe from frosting

If the temperature of the indoor coil is below -2°C after 7 minutes from starting the compressor, the compressor and the outdoor fan is stopped, and then after 3 minute delay of the compressor and the temperature of the indoor coil is over 7°C, the compressor and the outdoor fan is reoper-

Indoor fan operates at low speed (comp. OFF) or at selected speed (comp. ON)

#### ■ Inlet grille open

Once the inlet grille is opened during operation of the unit, the unit automatically stops operation and the lamps will be turned-off. But memorized functions are still available.

When the inlet grille is closed again, the unit become waiting state for operation. From then, the unit can be operated by forced operation button or Start/Stop button of remote controller.

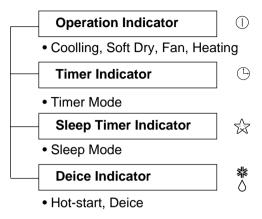
#### **■** Test Operation

- When pressing forced operation switch about 3 seconds, the unit operates in cooling mode at high speed fan regardless of room temperature and resets in 18 min.
- During test operation, if remote controller signal is received, the unit operates as remote controller sets.

#### Auto Restarting Operation

- When the power is restored after a sudden power failure while in appliance is in operation, the mode before the power failure is kept on the memory and the appliance should operate automatically in the mode kept in the memory.
- Operation Mode that is kept on the memory
- State of Operation ON/OFF
- Operation Mode/Setting Temperature /Selected airflow Speed
- Sleep Timer Mode/Remaining Time of Sleep Timer(unit of hour)
- If no input by the remote controller or no switching of the slide switch within 7 hours after the appliance operates by the Auto Restarting operation, the appliance is forced to stop at the moment of 7 hours elapse.

# 4. Display Function

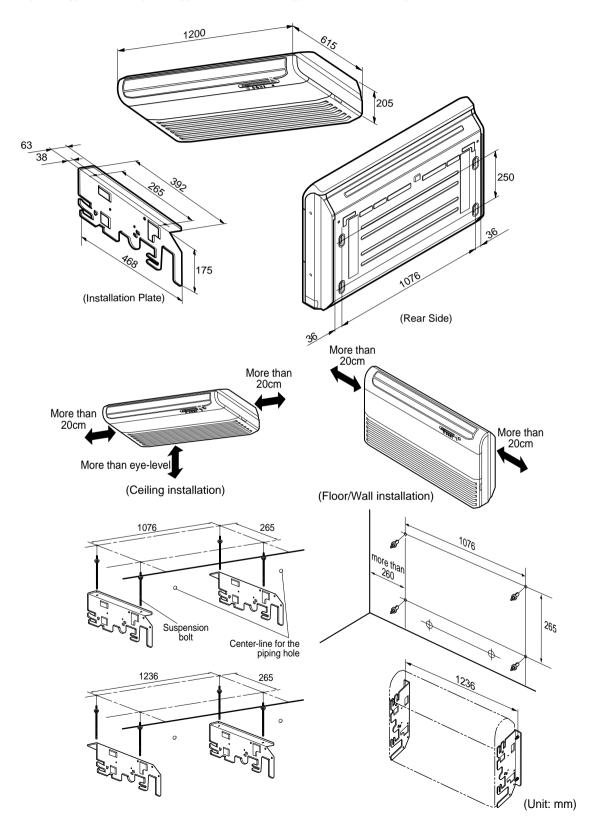


#### Note)

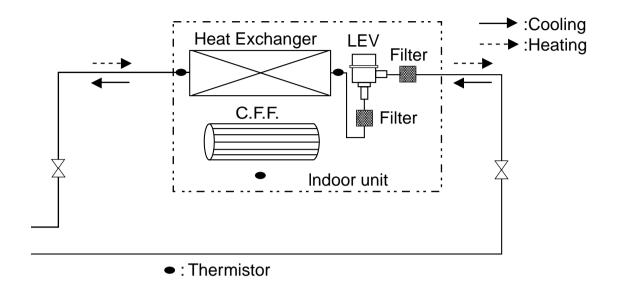
For normal operation after checking by test mode, you should press SW1 nine times for resetting or reconnect the power cord.

## 5. Dimensional Drawings

LRNV186VBA0/LRNN186VBA0/LRNV182VBA0/LRNN182VBA0 LRNV246VBA0/LRNN246VBA0/LRNV242VBA0/LRNN242VBA0



# 6. Piping Diagrams

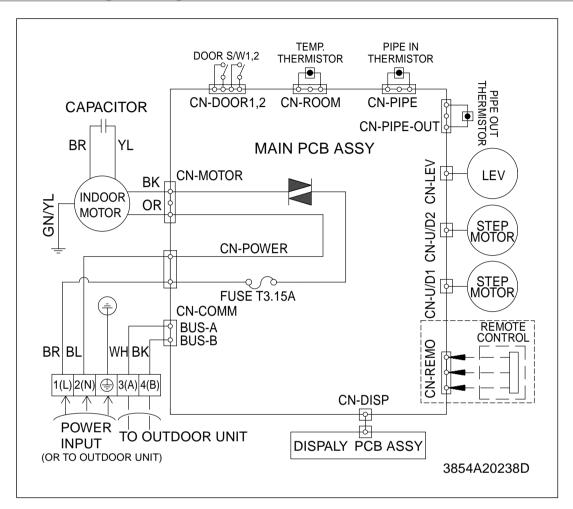


Refrigerant pipe connection port diameter

[unit: mm(inch)]

Model	Gas	Liquid
LRNV186VBA0/LRNN186VBA0/LRNV182VBA0/LRNN182VBA0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV246VBA0/LRNN246VBA0/LRNV242VBA0/LRNN242VBA0	Ø15.88(5/8)	Ø9.52(3/8)

## 7. Wiring Diagrams



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	WHITE	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR2	AC FAN MOTOR OUTPUT	YELLOW	MOTOR OUTPUT OF PHASE CONTROL
CN-D/PUMP	DRAIN PUMP OUTPUT	WHITE	AC OUTPUT FOR DRAIN PUMP
CN-COMM	COMMUNICATION	WHITE	COMMUNICATION BETWEEN INDOOR AND OUTDOOR
CN-DISP1	DISPLAY	WHITE	DISPLAY OF INDOOR STATUS
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-STEP/M1	STEP MOTOR	WHITE	STEP MOTOR OUTPUT
CN-FLOAT	FLOAT SWITCH INPUT	BLUE	FLOAT SWITCH SENSING
CN-PIPE	PIPE SENSOR	WHITE	PIPE THERMISTOR
CN-PIPE/O	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR
CN-ROOM	ROOM SENSOR	BLUE	ROOM THERMISTOR
CN-REMO	REMOTE CONTROLLER	WHITE	REMOTE CONTROL LINE
CN-AIRC	AIR CLEAN	WHITE	AIR CLEAN SIGNAL

## 8. Disassembly of the parts

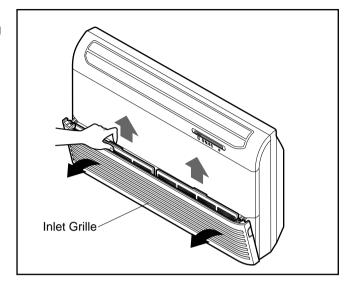
#### Warning:

Disconnect the unit from power supply before making any checks.

Be sure the power switch is set to "OFF".

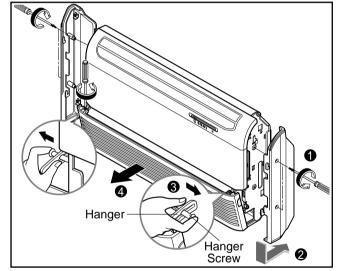
#### 1. Remove the air filter.

- Pull the inlet grille slightly toward you.
- Pull out the air filter. (2 pieces)



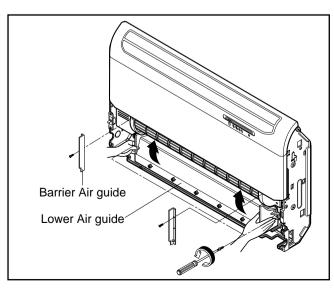
#### 2. Remove the girlle from chassis

- Remove the screws securing the side plate and push to the bottom-side.
- Unhook the hanger from the hanger screw at the left and the right side.
- Pick out the inlet grille.



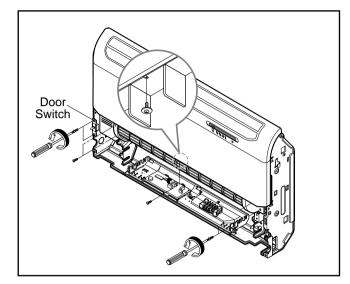
#### 3. Remove the lower air guide

- Remove a screw of both side fixing "barrier airguide".
- Remove the screws of both sides of the lower air-guide.
- Remove the lower air-guide toward "arrow mark" by turning upwards as shown in figure.

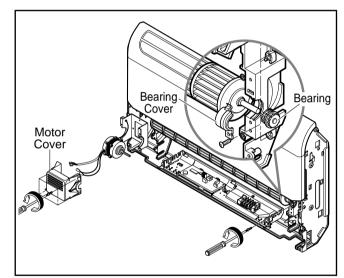


## 4. Remove air guide upper, crossflow fan and motor.

- Remove the screws of both sides and center securing the upper air-guide.
- Remove 2 screws fastening the bracket of door switch.

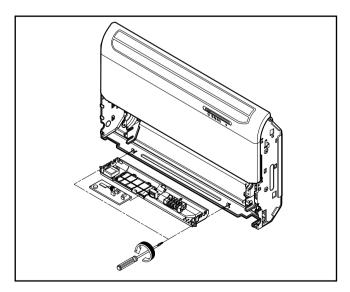


- Remove a bearing assembly by removing a screw and the bearing cover.
- Remove 4 screws securing the motor cover.
- Loosen the screw securing the crossflow fan to the fan motor shaft. (do not remove)
- Remove the crossflow fan by sliding it out from the shaft of fan motor.

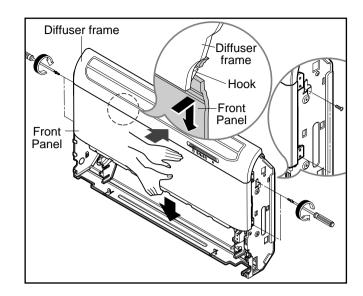


#### 5. Remove the control box Assembly.

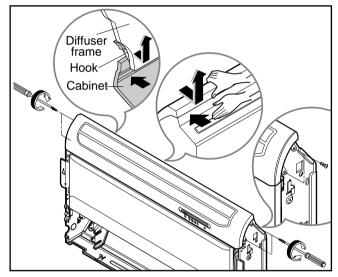
- Disconnect the step motor connector, fan motor connector, display PCB connector, thermistor connector and door switch connector from the main PCB.
- If necessary, disconnect power supply cord and connecting cable from the terminal block and remove the cord clamp screw.
- Remove 2 screws securing the control box and pick out the control box carefully.



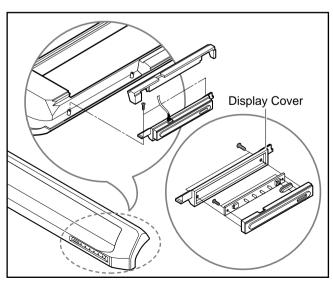
- 6. Remove the front panel.
  - Remove the screws of both sides fixing the front panel.
  - Push the upper side of front panel strongly to pull out the front panel from the inner hook of diffuser frame.
  - Pull down the front panel carefully not so as to harm the display PCB wires and thermistor wires.



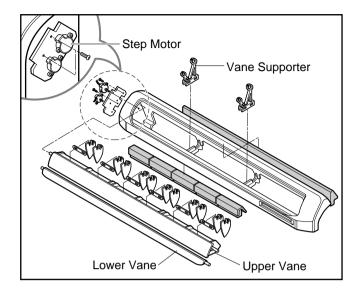
- 7. Remove the diffuser assembly.
  - Remove the screws of both side of diffuser assembly. (4 pieces)
  - Push the upper side of cabinet strongly to pull out the inner hook of diffuser frame from the cabinet hole.
  - Take up the diffuser frame carefully not so as to harm the display PCB wires and the step motor wires.



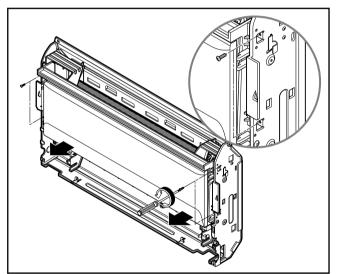
- 8. Remove display PCB assembly.
  - Remove the screws at the both side of display cover.
  - If necessary, disconnect the display PCB connector from PCB assembly.
  - Remove 2 screws of PCB assembly.



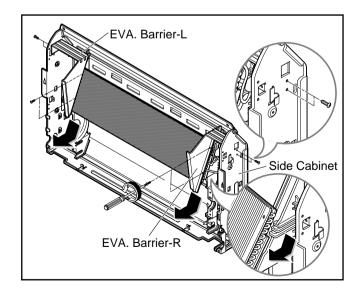
- 9. Remove the vane-upper, vane-lower and step motor.
  - Remove 2 screws securing the step motor assembly and pull it out from the vanes carefully.
  - Unhook the vanes from the vane supporter and remove the upper vane and lower vane by pulling the center of vanes with care.



- 10. Remove the drain pan assembly.
  - Remove the both side of screws. (4 pieces)
  - Pull out the drain pan assembly.
  - Be careful not to harm to the EPS packing of drain pan and the tubings of evaporator.



- 11. Remove the evaporator.
  - Remove the screws of both sides securing the EVA barrier-R/L on the side cabinet.
  - Remove the screws which fasten the barrier on the evaporator and take out the barrier assembly.
  - Remove the evaporator assembly by sliding toward arrow mark. (As shown in figure)



## **Wall Mounted Type**

1. Specification	108
2. Functions	112
3. Operation Details	113
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5. Piping Diagrams	119
6. Wiring Diagrams	120
7. Disassembly of the parts	121

## 1. Specifications

### 1.1 50Hz

#### 1.1.1 Cooling Only

Cooling Only (50Hz)

	Model	Unit	LRNV076SRA(L)0	LRNV096SRA(L)0	LRNV126SRA(L)0	LRNV186STA(L)0
Cooling Capacity		W	2,100	2,600	3,500	5,300
		kcal/h	1,806	2,235	3,009	4,557
		Btu/h	7,165	8,871	11,942	18,084
			-	-	-	-
Heating Capacity		kcal/h	-	-	-	-
		Btu/h	-	-	-	-
Dimensions (M*H*D)	Dodu	mm	900*285*156	900*285*156	900*285*156	1090*314*172
Dimensions (W*H*D)	Воау	inch	35.4*11.2*6.1	35.4*11.2*6.1	35.4*11.2*6.1	42.9*12.4*6.8
Coil	Rows x Columns x FPI		2*12*20	2*12*20	2*12*20	2*13*20
Coll	Face Area	m²	0.13	0.13	0.13	0.23
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output	W	15	15	15	25
	Running Current	Α	0.20	0.20	0.20	0.30
Fan	Air Flow Rate(H/M/L)	cmm	5.6/5/4.6	7/ 6.5 /6	9.5/ 9/8.5	12/10.5/10.3
	, ,	cfm	198/177/162.5	247/230/212	336/318/300	424/371/364
	Drive		Direct	Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling			
Sound Absorbing Thermal Insulation Material		aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)	Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse	Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20	20	20	20
Net Weight		kg(lbs)	7(15.4)	7(15.4)	7(15.4)	12(26.5)
Noise Level(Sound Press, 1.5m, H/M/L) dBA		dBA±3	33/30/27	34/31/28	36/33/30	40/37/34
Power Supply Ø / V / H		Ø/V/Hz	1 / 220 ~ 240 / 50	1, 220 ~ 240, 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control		LEV	LEV	LEV	LEV	
Power cable mm <sup>2</sup>		CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C	
Transmission cable mm <sup>2</sup>		CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C		CVV-SB 1.25 X 2C	
Panel Color			White	White	White	White
Stuffing Quantity	Stuffing Quantity   Without S/parts   20/40		340/720	340/720	340/720	270/540

#### Notes:-

- 1. Capacities are based on the following conditions:
  - Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
    - $\bullet$  Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860 Btu/h = kW x 3414 cfm = m³/min x 35.3

### 1.1.2 Heat Pump

Heat Pumps(50Hz)

	Model	Unit	LRNN076SRA(L)0	LRNN0926RA(L)0	LRNN126SRA(L)0	LRNN186STA(L)0
		W	2,100	2,600	3,500	5,300
Cooling Capacity		kcal/h	1,806	2,235	3,009	4,557
		Btu/h	7,165	8,871	11,942	18,084
		W	2,363	2,925	3,938	5,963
Heating Capacity		kcal/h	2,031	2,515	3,385	5,127
		Btu/h	8,061	9,980	13,435	20,345
Dimensions (W*H*D) Body		mm	900*285*156	900*285*156	900*285*156	1090*314*172
Dilliciololis (W 11 D)	Бойу	inch	35.4*11.2*6.1	35.4*11.2*6.1	35.4*11.2*6.1	42.9*12.4*6.8
Coil Rows x Columns x FP			2*12*20	2*12*20	2*12*20	2*13*20
	Face Area	m²	0.13	0.13	0.13	0.23
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
Motor Output		W	15	15	15	25
	Running Current	Α	0.20	0.20	0.20	0.30
Fan	Air Flow Rate(H/M/L)	cmm	5.6/5/4.6	7/ 6.5 /6	9.5/ 9/8.5	12/10.5/10.3
		cfm	198/177/162.5	247/230/212	336/318/300	424/371/364
	Drive		Direct	Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control	Phase Control
Temperature Cor	ntrol		Microprocessor, Thermostat for cooling and heating			
Sound Absorbing	Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)	Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse	Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20	20	20	20
Net Weight		kg(lbs)	7(15.4)	7(15.4)	7(15.4)	12(26.5)
Noise Level(Sound Press, 1.5m, H/M/L)		dBA±3	33/30/27	34/31/28	36/33/30	40/37/34
Power Supply Ø /		Ø/V/Hz	1, 220 ~ 240, 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1, 220 ~ 240, 50
Refrigerant Control			LEV	LEV	LEV	LEV
Power cable mm <sup>2</sup>		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission cal	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	
Panel Color			White	White	White	White
Stuffing Quantity	Without S/parts	20/40ft	340/720	340/720	340/720	270/540

#### Notes:-

1. Capacities are based on the following conditions:

- Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3414$ cfm = m<sup>3</sup>/min x 35.3

## 1.2 60Hz

## 1.2.1 Cooling Only

Cooling Only (60Hz)

	Madal	4:ما ا	L DNI\/072CD A/L\0	I DNI\/000CD \/ I \0	I DNI\/4000D \/ I \0	I DNI\/400CTA/L\0
	Model	Unit	LRNV072SRA(L)0	LRNV092SRA(L)0	LRNV122SRA(L)0	. ,
		W	2,100	2,600	3,500	5,300
Cooling Capacity	1	kcal/h	1,806	2,235	3,009	4,557
		Btu/h	7,165	8,871	11,942	18,084
		W	-	-	-	-
Heating Capacity		kcal/h	-	-	-	-
ricaling Capacity		Btu/h	-	-	-	-
Dimensions (W*H*D) Body		mm	900*285*156	900*285*156	900*285*156	1090*314*172
Dimonsions (W Tr D)	Body	inch	35.4*11.2*6.1	35.4*11.2*6.1	35.4*11.2*6.1	42.9*12.4*6.8
Coil Rows x Columns x FPI			2*12*20	2*12*20	2*12*20	2*13*20
Con	Face Area	m²	0.13	0.13	0.13	0.23
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
Motor Output		W	15	15	15	25
	Running Current	Α	0.20	0.20	0.20	0.30
Fan	Air Flow Rate(H/M/L)	cmm	5.6/5/4.6	7/ 6.5 /6	9.5/ 9/8.5	12/10.5/10.3
		cfm	198/177/162.5	247/230/212	336/318/300	424/371/364
	Drive		Direct	Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling			
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)	Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse	Fuse	Fuse
•	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	Ø15.88(5/8)
•	Drain Pipe(ID)	mm	20	20	20	20
Net Weight	. , ,	kg(lbs)	7(15.4)	7(15.4)	7(15.4)	12(26.5)
Noise Level(Sou	nd Press, 1.5m, H/M/L)	dBA±3	33/30/27	34/31/28	36/33/30	40/37/34
		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Control			LEV	LEV	LEV	LEV
		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C			
Panel Color		<b>I</b>	White	White	White	White
Stuffing Quantity	Without S/parts	20/40ft	340/720	340/720	340/720	270/540
<u> </u>	1		1	1	l	

#### Notes:-

1. Capacities are based on the following conditions:

- Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
  - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
     Interconnecting Piping Length 7.5m

  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3414$  $cfm = m^3/min \times 35.3$ 

### 1.1.2 Heat Pump

Heat Pumps(60Hz)

			I	1		
	Model	Unit	LRNN072SRA(L)0	LRNN092SRA(L)0	` '	` '
		W	2,100	2,600	3,500	5,300
Cooling Capacity		kcal/h	1,806	2,235	3,009	4,557
		Btu/h	7,165	8,871	11,942	18,084
		W	2,363	2,925	3,938	5,963
Heating Capacity		kcal/h	2,031	2,515	3,385	5,127
		Btu/h	8,061	9,980	13,435	20,345
Dimensions (W*H*D) Body		mm	900*285*156	900*285*156	900*285*156	1090*314*172
Dilliensions (W 11 D)	Воду	inch	35.4*11.2*6.1	35.4*11.2*6.1	35.4*11.2*6.1	42.9*12.4*6.8
Coil	Rows x Columns x FPI		2*12*20	2*12*20	2*12*20	2*13*20
Oon	Face Area	m²	0.13	0.13	0.13	0.23
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output		15	15	15	25
	Running Current	Α	0.20	0.20	0.20	0.30
Fan	Air Flow Rate(H/M/L)	cmm	5.6/5/4.6	7/ 6.5 /6	9.5/ 9/8.5	12/10.5/10.3
		cfm	198/177/162.5	247/230/212	336/318/300	424/371/364
	Drive		Direct	Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating			
Sound Absorbing	Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)	Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse	Fuse	Fuse
-	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20	20	20	20
Net Weight	, , ,	kg(lbs)	7(15.4)	7(15.4)	7(15.4)	12(26.5)
Noise Level(Sour	nd Press, 1.5m, H/M/L)	dBA±3	33/30/27	34/31/28	36/33/30	40/37/34
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60	1 / 220 / 60
Refrigerant Control			LEV	LEV	LEV	LEV
Power cable r		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C			
Panel Color		•	White	White	White	White
Stuffing Quantity	Without S/parts	20/40ft	340/720	340/720	340/720	270/540
	•				1	

#### Notes:-

1. Capacities are based on the following conditions:

- Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  Interconnecting Piping Length 7.5m
- Level Difference of Zero

- Heating

   Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

   Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

Conversion Formula

Kcal/h= kW x 860  $Btu/h = kW \times 3414$  $cfm = m^3/min \times 35.3$ 

## 2. Functions

#### **Indoor Unit**

#### Operation ON/OFF by Remote controller

#### **Sensing the Room Temperature**

• Room temperature sensor. (THERMISTOR)

#### Room temperature control

• Maintains the room temperature in accordance with the Setting temperature

#### **Starting Current Control**

• Indoor fan is delayed for 5 seconds at the starting.

#### **Time Delay Safety Control**

• Restarting is inhibited for approx. 3 minutes.

#### **Indoor Fan Speed Control**

• High, Med, Low, Chaos

#### Operation indication Lamps (LED)

— Lights up in operation

Lights up in Timer Mode

--- Lights up in Deice ModeBB--- Indicate the setting temperature.

#### **Health Dehumidification Operation**

• Intermittent operation of fan at low speed.

#### **Sleep Mode Auto Control**

- The fan is switched to low(Cooling), med(Heating) speed.
- The unit will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.

#### **Natural Air Control by CHAOS Logic**

- The fan is switched to intermittent or irregular operation
- The fan speed is automatically switched from high to low speed.

#### **Airflow Direction Control**

• The louver can be set at the desired position or swing up and down automatically.

#### **Auto Restart**

 Although the air conditioner is turned off by a power failure, it is restarted automatically to previous operation mode after power suply.

#### Deice (defrost) control (Heating)

- Both the indoor and outdoor fan stops during deicing.
- Hot start after deice ends.

#### **Hot-start Control (Heating)**

 The indoor fan does not rotate until the evaporator piping temperature will be reached at 28°C.

## 3. Operation Details

## (1) The function of main control

#### DISPLAY

#### Operation Indicator

• On while in appliance operation, off while in appliance pause

#### Sleep Timer Indicator

• On while in sleep timer mode, off when sleep timer cancel or appliance operation pause

#### Timer Indicator

• On while in timer mode (on/off), off when timer mode is completed or canceled

#### **Defrost Indicator**

Off except when hot start during heating mode operation or while in defrost control

#### **■** Cooling Mode Operation

- When the intake air temperature reaches 0.5°C below the setting temperature, the compressor and the out-door fan stop.
- When it reaches 0.5°C above the setting temperature, they start to operate again.

Compressor ON Temperature

Setting Temperature +0.5°C

Compressor OFF Temperature

Setting Temperature -0.5°C

• While in compressor running, operating with the airflow speed set by the remote control. While in compressor not running, operating with the low airflow speed regardless of the setting.

#### ■ Soft Dry Operation Mode

• When the dehumidification operation input by the remote control is received, the intake air temperature is detected and the setting temperature is automatically set according to the intake air temperature.

26°C ≤ Intake Air Temperature

**○** 25°C

 $24^{\circ}C \leq$  Intake Intake Air Temperature <26°C

Intake Air Temperature -1°C

18°C ≤ Intake Intake Air Temperature <24°C

Intake Air Temperature -0.5°C

Intake Air Temperature <18°C

C 18°C

- While in compressor off, the indoor fan repeats low airflow speed and pause.
- While the intake air temperature is between compressor on temperature and compressor off temperature,
   10-min dehumidification operation and 4-min compressor off repeat.

Compressor ON temperature

◆ Setting Temperature +0.5°C

Compressor OFF temperature

- Setting Temperature -0.5°C
- In 10-min dehumidification operation, the indoor fan operates with the low airflow speed.

#### **■** Heating Mode Operation

• When the intake air temperature reaches +3°C above the setting temperature, the compressor is turned off. When below the setting temperature, the compressor is turned on.

Compressor ON temperature

Setting temperature

Compressor OFF temperature

Setting temperature+3°C

• While in compressor on, the indoor fan is off when the indoor pipe temperature is below 26°C, when above 28°C, it operates with the low or setting airflow speed.

- While in compressor off, the indoor fan is off when the indoor pipe temperature is below 33°C, when above 35°C, it operates with the low airflow speed.
- If overloaded while in heating mode operation, in order to prevent the compressor from OLP operation, the outdoor fan is turned on/off according to the indoor pipe temperature
- While in defrost control, both of the indoor and outdoor fans are turned off.

#### **■** Fuzzy Operation

- When any of operation mode is not selected like the moment of the power on or when 3 hrs has passed since the operation off, the operation mode is selected.
- When determining the operation mode, the compressor, the outdoor fan, and the 4 way valve are off and only the indoor fan is operated for 15 seconds. Then an operation mode is selected according to the intake air temperature at that moment as follows.

• If any of the operation modes among cooling / dehumidification / heating mode operations is carried out for 10 sec or longer before Fuzzy operation, the mode before Fuzzy operation is operated.

#### 1) Fuzzy Operation for Cooling

• According to the setting temperature selected by Fuzzy rule, when the intake air temperature is 0.5°C or more below the setting temperature, the compressor is turned off. When 0.5°C or more above the setting temperature, the compressor is turned on.

 At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temperature at that time.

26°C≤ Intake Air Temperature
24°C≤ Intake Air Temperature <26°C

22°C≤ Intake Air Temperature <24°C

18°C≤ Intake Air Temperature <22°C

18°C≤ Intake Air Temperature <22°C

18°C≤ Intake Air Temperature <18°C

18°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

#### 2) Fuzzy Operation for Dehumidification

 According to the setting temperature selected by Fuzzy rule, when the intake air temperature is 0.5°C or more below the setting temperature, the compressor is turned off. When 0.5°C or more above the setting temperature, the compressor is turned on.

Compressor ON Temperature Compressor OFF Temperature Setting Temperature + 0.5°C Compressor OFF Temperature Compressor OFF Temperature Compressor ON Temperature Compressor ON

 At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temperature at that time.

26°C ≤ Intake Air Temperature
24°C ≤ Intake Air Temperature <26°C
22°C ≤ Intake Air Temperature <24°C
18°C ≤ Intake Air Temperature <22°C
Intake Air Temperature <22°C

Intake Air Temperature <18°C

C 25°C
Intake Air Temperature − 1°C
Intake Air Temperature − 0.5°C
Intake Air Temperature

C 26°C
Intake Air Temperature − 1°C
Intake Air Temperature − 0.5°C

C Intake Air Temperature

C 28°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan repeats the low airflow speed or pause as in dehumidification operation.

#### 3) Fuzzy Operation for Heating

 According to the setting temperature selected by Fuzzy rule, when the intake air temperature is 3°C or more above the setting temperature, the compressor is turned off. When below the setting temperature, the compressor is turned on.

Compressor ON Temperature Compressor OFF Temperature Setting Temperature + 3°C

 At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temperature at that time.

20°C≤Intake Air Temperature C Intake Air Temperature + 0.5°C Intake Air Temperature < 20°C C 20°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is set to the high or the medium according to the intake air temperature and the setting temperature.

#### ■ Airflow Speed Selection

• The airflow speed of the indoor fan is set to high, medium, low, or chaos (auto) by the input of the airflow speed selection key on the remote control.

#### **■** On-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance starts to operate.
- The timer LED is on when the on-timer is input. It is off when the time set by the timer is reached.
- If the appliance is operating at the time set by the timer, the operation continues.

While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

#### **■** Off-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance stops operating.
- The timer LED is on when the off-timer is input. It is off when the time set by the timer is reached.
- If the appliance is on pause at the time set by the timer, the pause continues.

#### ■ Off-Timer <=> On-Timer Operation

• When the set time is reached after the on/off time is input by the remote control, the on/off-timer operation is carried out according to the set time.

#### ■ Sleep Timer Operation

- When the sleep time is reached after < 1,2,3,4,5,6,7,0(cancel) hour > is input by the remote control while in appliance operation, the operation of the appliance stops.
- While the appliance is on pause, the sleep timer mode cannot be input.
- While in cooling mode operation, 30 min later since the start of the sleep timer, the setting temperature increases by 1°C. After another 30 min elapse, it increases by 1°C again.
- When the sleep timer mode is input while in cooling cycle mode, the airflow speed of the indoor fan is set to the low
- When the sleep timer mode is input while in heating cycle mode, the airflow speed of the indoor fan is set to the medium.

#### **■** Chaos Swing Mode

- By the Chaos Swing key input, the upper/lower vane automatically operates with the Chaos Swing or they
  are fixed to the desired direction.
- While in Chaos Swing mode, the angles of cooling and heating cycle operations are different.

#### ■ Chaos Natural Wind Mode

• When the Chaos Natural Wind mode is selected and then operated, the high, medium, or low speed of the airflow mode is operated for 2~15 sec. randomly by the Chaos Simulation.

#### ■ Jet Cool Mode Operation

- While in heating mode or Fuzzy operation, the Jet Cool key cannot be input. When it is input while in the
  other mode operation (cooling, dehumidification, ventilation), the Jet Cool mode is operated.
- In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
- In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C.
- When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
- When the Jet Cool key is input, the upper/lower vanes are reset to those of the initial cooling mode and then
  operated in order that the air outflow could reach further.

#### Auto restart

• In case the power comes on again after a power failure, Auto Restarting Operation is the function to operate procedures automatically to the previous operating conditions.

#### **■** Forced Operation

- Operation procedures when the remote control can't be used.
- The operation will be started if the power button is pressed.
- If you want to stop operation, re-press the button.

	Room temperature ≥ 24°C	21°C ≤ Room temperature < 24°C	Room temperature < 21°C
Operating mode	Cooling	Healthy Dehumidification	Heating
Indoor FAN Speed	High	High	High
Setting Temperature	22°C	23°C	24°C

• While in forced operation, the key input by the remote control has no effect and the buzzer sounds 10 times to indicate the forced operation.

#### **■** Test operation

- During the TEST OPERATION, the unit operates in cooling mode at high speed fan, regardless of room temperature and resets in 18±1 minutes.
- During test operation, if remote controller signal is received, the unit operates as remote controller sets. If you want to use this operation, open the front panel upward and Press the power button let it be pressed for about 3 seconds.
- If you want to stop the operation, re-press the button.

#### ■ Protection of the evaporator pipe from frosting

- If the indoor pipe temperature is below 0°C in 7 min. after the compressor operates without any pause while in cooling cycle operation mode, the compressor and the outdoor fan are turned off in order to protect the indoor evaporator pipe from frosting.
- When the indoor pipe temperature is 7°C and higher after 3 min. pause of the compressor, the compressor and the outdoor fan is turned on according to the condition of the room temperature.

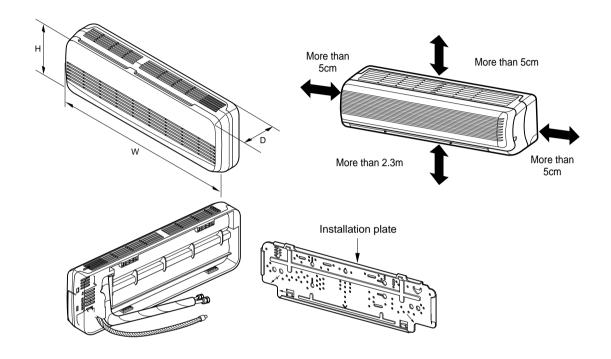
#### **■** Buzzer Sounding Operation

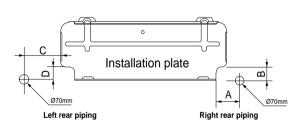
- When the appliance-operation key is input by the remote control, the short "beep-beep-" sounds.
- When the appliance-pause key is input by the remote control, the long "beep—" sounds.



# 4. Dimiensional Drawings

LRNV076SRA(L)0/LRNN076SRA(L)0/LRNV072SRA(L)0/LRNN072SRA(L)0 LRNV096SRA(L)0/LRNN096SRA(L)0/LRNV092SRA(L)0/LRNN092SRA(L)0 LRNV126SRA(L)0/LRNN126SRA(L)0/LRNV122SRA(L)0/LRNN122SRA(L)0 LRNV186STA(L)0/LRNN186STA(L)0/LRNV182STA(L)0/LRNN182STA(L)0



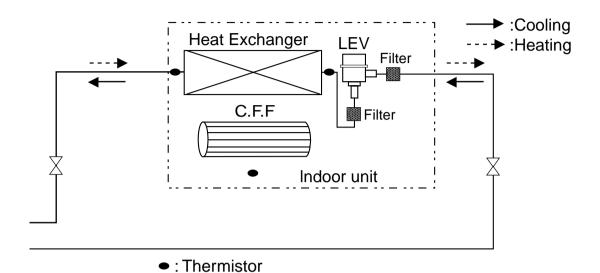


CHASSIS	Distance(mm)				
(Grade)	Α	В	С	D	
SR (7k/9k/12k)	0	40	20	40	
ST (18k)	105	0	210	0	

(unit:mm)

Model	W	Н	D
LRNV076SRA(L)0/LRNN076SRA(L)0 LRNV072SRA(L)0/LRNN072SRA(L)0			
LRNV096SRA(L)0/LRNN096SRA(L)0 LRNV092SRA(L)0/LRNN092SRA(L)0	900	285	156
LRNV126SRA(L)0/LRNN126SRA(L)0 LRNV122SRA(L)0/LRNN122SRA(L)0			
LRNV186STA(L)0/LRNN186STA(L)0 LRNV182STA(L)0/LRNN182STA(L)0	1090	314	172

# 5. Piping Diagrams

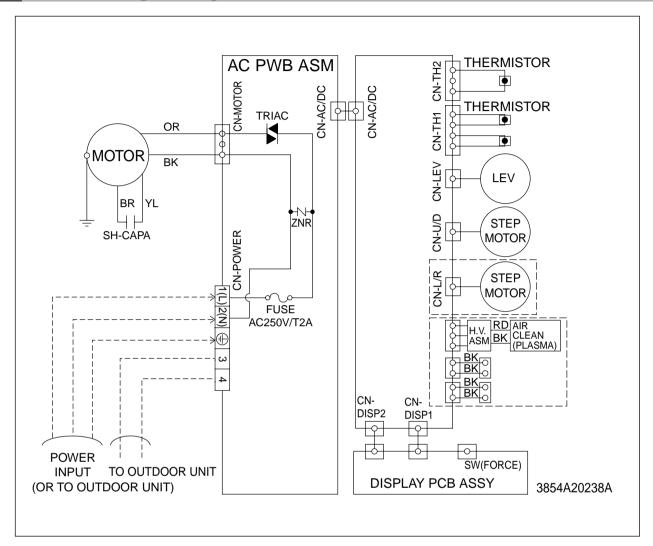


Refrigerant pipe connection port diameter

[unit: mm(inch)]

MODEL	GAS	LIQUID
LRNV076SRA(L)0/LRNN076SRA(L)0/LRNV072SRA(L)0/LRNN072SRA(L)0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV096SRA(L)0/LRNN096SRA(L)0/LRNV092SRA(L)0/LRNN092SRA(L)0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV126SRA(L)0/LRNN126SRA(L)0/LRNV122SRA(L)0/LRNN122SRA(L)0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV186STA(L)0/LRNN186STA(L)0/LRNV182STA(L)0/LRNN182STA(L)0	Ø15.88(5/8)	Ø9.52(3/8)

# 6. Wiring Diagrams



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	BLACK	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR	AC FAN MOTOR OUTPUT	WHITE	MOTOR OUTPUT OF PHASE CONTROL
CN-AC/DC	AC/DC CONNECTION	GRAY	CONNECTION BETWEEN AC PCB AND DC PCB
CN-COMM	COMMUNICATION	BLACK	CONNECTION BETWEEN INDOOR AND OUTDOOR
CN-DISP1	DISPLAY	BLUE	DISPLAY OF INDOOR STATUS
CN-DISP2	DISPLAY	WHITE	DISPLAY OF INDOOR STATUS
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-UD	STEP MOTOR	WHITE	STEP MOTOR OUTPUT
CN-TH1	ROOM/PIPE SENSOR	WHITE	ROOM AND PIPE THERMISTOR
CN-PIPEOUT	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR

# 7. Disassembly of the parts

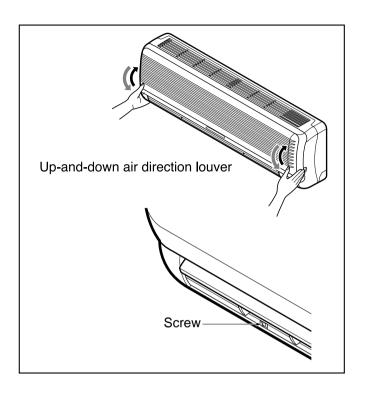
#### Warning:

Disconnect the unit from power supply before making any checks.

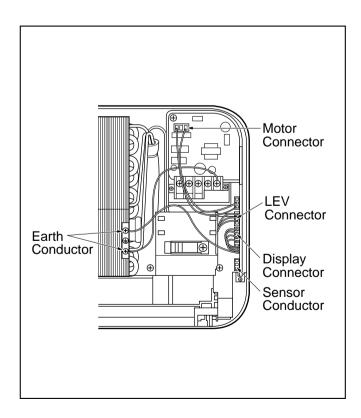
Be sure the power switch is set to "OFF".

#### To remove the Grille from the Chassis.

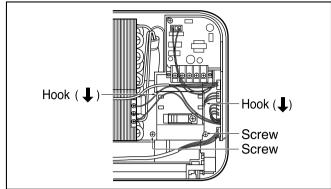
- Set the up-and-down air discharge louver to open position (horizontally) by finger pressure.
- Remove the securing screws
- To remove the Grille, pull the lower left and right side of the grille toward you (slightly tilted) and lift it straight upward.



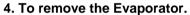
1. To remove the sensor, housing connect, earth connector & step motor connector with sensor holder, Motor, Evaporator & P.C.B.



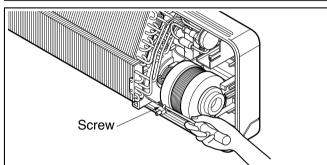
- 2. To remove the Control Box.
  - Remove securing screws.
  - Pull the control box out from the chassis carefully.

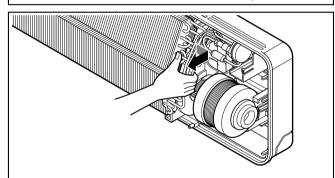


- 3. To remove the Discharge Grille.
  - Pull the discharge grille out from the chassis carefully.



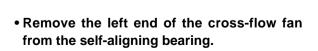
- Remove screws securing the evaporator and the holder eva.
- Unhook the tab on the right inside of the chassis at the same time, slightly pull the evaporator toward you until the tab is clear of the slot.

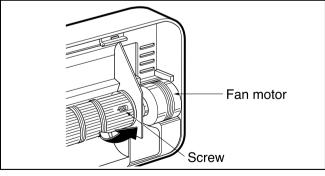


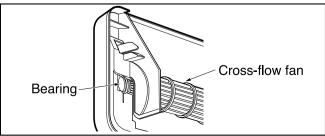


#### 5. To remove the Cross-Flow Fan

- Loosen the screw securing the cross-flow fan to the fan motor (do not remove).
- Lift up the right side of the cross-flow fan and the fan motor, separate the fan motor from the cross-flow fan.







# **Art Cool Type(Deluxe)**

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# 1. Specifications

## 1.1 50Hz

## 1.1.1 Cooling Only

Cooling Only (50Hz)

Model	Unit	LRNV076SU*0	LRNV096SU*0	LRNV126SU*0	
		2,100	2,600	3,500	
Cooling Capacity		1,806	2,235	3,009	
		7,165	8,871	11,942	
		-	-	-	
Heating Capacity		-	-	-	
		-	-	-	
Dimensions (W*H*D) Body		1030*290*153	1030*290*153	1030*290*153	
ьошу	inch	40.6*11.4*6.1	40.6*11.4*6.1	40.6v11.4*6.1	
Rows x Columns x FPI		2*12*19	2*12*19	2*12*19	
Face Area	m²	0.13	0.13	0.13	
Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan	
Motor Output		8	8	15	
Running Current	Α	0.17	0.17	0.20	
Air Flow Rate(H/M/L)	cmm	6.5/ 6.2 /6	7.7/ 7 /6.4	8.8/ 8 /7.5	
	cfm	230/219/212	272/247/226	311/283/265	
Drive		Direct	Direct	Direct	
Speed control		Phase Control	Phase Control	Phase Control	
trol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling	
Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene	
		Resin Net(washable)	Resin Net(washable)	Resin Net(washable)	
		Fuse	Fuse	Fuse	
Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)	
Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)	
Drain Pipe(ID)	mm	20	20	20	
	kg(lbs)	8(18.5)	8(18.5)	9.5(20.9)	
Noise Level (Sound Press,1.5m, H/M/L)		33/30/27	34/31/28	36/33/30	
Power Supply		1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	
Refrigerant Control		LEV	LEV	LEV	
	mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C	
Transmission cable mm²		CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	
Front Panel('*' Position)			R:Mirror, M:Metal, B:Blue, D:Wood, W: White, C:Cherry		
sition)		R:Mirror, M:Me 324/684	etal, B:Blue, D:Wood, W: W	/hite, C:Cherry	
	Body Rows x Columns x FPI Face Area Type Motor Output Running Current Air Flow Rate(H/M/L) Drive Speed control trol Thermal Insulation Ma Liquid Side Gas Side Drain Pipe(ID) ad Press,1.5m, H/M/L)	W kcal/h Btu/h W kcal/h Btu/h Body Rows x Columns x FPI Face Area m² Type Motor Output W Running Current A Air Flow Rate(H/M/L) cmm cfm Drive Speed control trol Thermal Insulation Material Liquid Side mm(inch) Gas Side mm(inch) Drain Pipe(ID) mm kg(Ibs) dd Press,1.5m, H/M/L) dBA±3 Ø / V / Hz ol	W   2,100	W   2,100   2,600	

#### Notes:-

- 1. Capacities are based on the following conditions:
  - Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
    - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### Conversion Formula

Kcal/h= kW x 860 Btu/h = kW x 3412 cfm = m³/min x 35.3

### 1.1.2Heat Pump

Heat Pump (50Hz)

	Model	Unit	LRNV186S3*0	LRNV246S3*0
		W	5,300	7,000
Cooling Capacity		kcal/h	4,557	6,019
		Btu/h	18,084	23,885
		W	-	-
Heating Capacity		kcal/h	-	-
		Btu/h	-	-
Dimensions (W*H*D) Body		mm	1170*315*170	1170*315*170
· · · · · ·		inch	46.1*12.4*6.8	46.1*12.4*6.8
Coil			2*13*20	2*13*20
Face Area		$\mathbf{m}^2$	0.15	0.15
Туре			Cross Flow Fan	Cross Flow Fan
Motor Output		W	30	30
	Running Current	Α	0.25	0.25
Fan	Air Flow Rate(H/M/L)	cmm	12.6/11.5/10	15/14/13
		cfm	445/406/353	530/494/459
	Drive		Direct	Direct
	Speed control		Phase Control	Phase Control
Temperature Con			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
'	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20	20
Net Weight		kg(lbs)	13(28.6)	13(28.6)
Noise Level (Sour	nd Press,1.5m, H/M/L)	dBA±3	42/40/37	44/41/38
Power Supply		Ø / V / Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
	Refrigerant Control		LEV	LEV
Power cable		mm²	CV2.0 x 3C	CV2.0 Xx 3C
Transmission cab		mm²	CVV-SB 1.25 x 2C	CVV-SB 1.25 x 2C
Front Panel('*' Po				D:Wood, W: White, C:Cherry
Stuffing Quantity	Without S/parts	20/40ft	231/490	231/490

#### Notes:-

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
   Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3412$  $cfm = m^3/min \times 35.3$ 

## 1.2 60Hz

### 1.2.1 Cooling Only

Cooling Only (60Hz)

	Model	Unit	LRNN076SU*0	LRNN096SU*0	LRNN126SU*0
		W	2,100	2,600	3,500
Cooling Capacity		kcal/h	1,806	2,235	3,009
		Btu/h	7,165	8,871	11,942
		W	2,363	2,925	3,938
Heating Capacity		kcal/h	2,031	2,515	3,385
		Btu/h	8,061	9,980	13,435
Dimensions (W*H*D) Body		mm	1030*290*153	1030*290*153	1030*290*153
		inch	40.6*11.4*6.1	40.6*11.4*6.1	40.6*11.4*6.1
Coil	Rows x Columns x FPI		2*12*19	2*12*19	2*12*19
	Face Area	m²	0.13	0.13	0.13
	Туре		Cross Flow Fan	Cross Flow Fan	Cross Flow Fan
	Motor Output	W	8	8	15
	Running Current	Α	0.17	0.17	0.20
Fan	Air Flow Rate(H/M/L)	cmm	6.5/ 6.2 /6	7.7/ 7 /6.4	8.8/ 8 /7.5
		cfm	230/219/212	272/247/226	311/283/265
	Drive		Direct	Direct	Direct
	Speed control		Phase Control	Phase Control	Phase Control
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	Foamed polystrene
Air Filter	-		Resin Net(washable)	Resin Net(washable)	Resin Net(washable)
Safety Device			Fuse	Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(ID)	mm	20	20	20
Net Weight		kg(lbs)	8(18.5)	8(18.5)	9.5(20.9)
Noise Level (Sou	Noise Level (Sound Press,1.5m, H/M/L)		33/30/27	34/31/28	36/33/30
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Front Panel('*' Po	osition)	•	R:Mirror, M:Me	etal, B:Blue, D:Wood, W: W	hite, C:Cherry
Stuffing Quantity	Without S/parts	20/40ft	324/684	324/684	324/684

- 1. Capacities are based on the following conditions:

  - Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
    - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero

Heating • Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- $\bullet$  Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### Conversion Formula

Kcal/h= kW x 860  $Btu/h = kW \times 3412$  $cfm = m^3/min \times 35.3$ 

### 1.2.2Heat Pump

Heat Pump (60Hz)

	Model	Unit	LRNN186S3*0	LRNN246S3*0	
		W	5,300	7,000	
Cooling Capacity		kcal/h	4,557	6,019	
		Btu/h	18,084	23,885	
		W	5,963	7,875	
Heating Capacity	/	kcal/h	5,127	6,771	
3 - 4 - 4		Btu/h	20,345	26,870	
Dimensione (M*H*D)	Dody	mm	1170*315*170	1170*315*170	
Dimensions (W*H*D)	Бойу	inch	46.1*12.4*6.8	46.1*12.4*6.8	
Coil	Rows x Columns x FPI		2*13*20	2*13*20	
	Face Area	m²	0.15	0.15	
	Туре	•	Cross Flow Fan	Cross Flow Fan	
	Motor Output	W	30	30	
	Running Current	Α	0.25	0.25	
Fan	Air Flow Rate(H/M/L)	cmm	12.6/11.5/10	15/14/13	
	,	cfm	445/406/353	530/494/459	
	Drive		Direct	Direct	
	Speed control		Phase Control	Phase Control	
Temperature Co			Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating	
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene	
Air Filter			Resin Net(washable)	Resin Net(washable)	
Safety Device		Fuse	Fuse		
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)	
	Drain Pipe(ID)	mm	20	20	
Net Weight		kg(lbs)	13(28.6)	13(28.6)	
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	42/40/37	44/41/38	
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50	
Refrigerant Control		LEV	LEV		
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C	
Transmission cable mm		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C	
Front Panel('*' Position)		R:Mirror, M:Metal, B:Blue, D:Wood, W: White, C:Cherry			
Stuffing Quantity Without S/parts 20		20/40ft	231/490	231/490	

#### Notes:-

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero

Heating • Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

• Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB

- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860  $Btu/h = kW \times 3412$  $cfm = m^3/min \times 35.3$ 

## 2. Functions

#### **Indoor Unit**

#### Operation ON/OFF by Remote controller

#### **Sensing the Room Temperature**

• Room temperature sensor. (THERMISTOR)

#### Room temperature control

• Maintains the room temperature in accordance with the Setting Temp.

#### **Starting Current Control**

• Indoor fan is delayed for 5 sec at the starting.

#### **Time Delay Safety Control**

• Restarting is inhibited for approx. 3 minutes.

#### **Indoor Fan Speed Control**

• High, Med, Low, CHAOS, JET COOL

#### **Soft Dry Operation Mode**

• Intermittent operation of fan at low speed.

#### **Sleep Mode Auto Control**

- The fan is switched to low(Cooling), med(Heating) speed.
- The unit will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.

#### **Natural Air Control by CHAOS Logic**

- The fan is switched to intermittent or irregular operation
- The fan speed is automatically switched from high to low speed.

#### **Airflow Direction Control**

• The louver can be set at the desired position or swing up and down automatically.

#### Defrost(Deice) control (Heating)

 Both the indoor and outdoor fan stops during defrosting.

#### **Hot-start Control (Heating)**

 The indoor fan does not rotate until the evaporator pipe temperature will be reached at 28°C.

## 3. Operation Details

### 1. MAIN UNIT FUNCTION

#### DISPLAY

#### Operation Indicator

- ON while in appliance operation, OFF while in appliance pause.
- Flashing while in disconnection or short in Thermistor. (3 sec off / 0.5 sec on)

#### Sleep Timer Indicator

• ON while in sleep timer mode, OFF when sleep timer cancel or appliance operation pause.

#### Timer Indicator

• ON while in timer mode (on/off), OFF when timer mode is completed or canceled.

#### Defrost Indicator

• OFF except when hot start during heating mode operation or while in defrost control.

#### **■** Cooling Mode Operation

- When the intake air temperature reaches 0.5°C below the setting temp, the compressor and the outdoor fan
- When it reaches 0.5°C above the setting temp, they start to operate again.

Compressor ON Temp

Setting Temp+0.5°C

Compressor OFF Temp

Setting Temp-0.5°C

• While in compressor running, operating with the airflow speed set by the remote control. While in compressor not running, operating with the low airflow speed regardless of the setting.

#### ■ Healthy Dehumidification Mode

• When the dehumidification operation input by the remote control is received, the intake air temperature is detected and the setting temp is automatically set according to the intake air temperature.

26°C ≤ Intake Air Temp

25°C

24°C ≤ Intake Intake Air Temp<26°C

Intake Air Temp-1°C

18°C ≤ Intake Intake Air Temp<24°C

▶ Intake Air Temp-0.5°C

Intake Air Temp<18°C

18°C

- While in compressor off, the indoor fan repeats low airflow speed and pause.
- While the intake air temp is between compressor on temp, and compressor off temp., 10-min dehumidification operation and 4-min compressor off repeat.

Compressor ON Temp.

Setting Temp+0.5°C

In 10-min dehumidification operation, the indoor fan operates with the low airflow speed.

#### **■** Heating Mode Operation

• When the intake air temp reaches +3°...above the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.

Compressor OFF Temp. • Setting Temp.+3°C

- While in compressor on, the indoor fan is off when the indoor pipe temp. is below 20°C, when above 28°C, it operates with the low or setting airflow speed. When the indoor pipe temp is between 20°C and 28°C, it operates with Super-Low(while in sleep mode, with the medium airflow speed).
- While in compressor off, the indoor fan is off when the indoor pipe temp is below 33°C, when above 35°C, it operates with the low airflow speed.
- If overloaded while in heating mode operation, in order to prevent the compressor from OLP operation, the outdoor fan is turned on/off according to the indoor pipe temp.
- While in defrost control, both of the indoor and outdoor fans are turned off.

#### ■ Defrost Control

- While in heating mode operation in order to protect the evaporator pipe of the outdoor unit from freezing, reversed to cooling cycle to defrost the evaporator pipe of the outdoor unit.
- After 40 min heating mode operation, at 4 min interval, whether to carry out defrost control or not and the time of defrost control are determined according to the following conditions.
- 1) While in heating mode operation, the maximum of the indoor pipe temperature is measured and it is compared with the present indoor pipe temperature to get the difference of the indoor pipe temperatures (=the maximum temperature of indoor pipe? the present temperature of indoor pipe), according to which, whether to carry out defrost control or not is determined.
- 2) According to the need of defrost control shown above and the elapsed time of heating mode operation at that moment, the defrost control time is determined.
- 3) When the determined time of defrost control is below 7 min, heating mode operation continues without carrying out defrost control. According to the procedure stated above, the determination is made again. When the defrost control time is 7 min or longer, defrost control is then carried out.
- While in defrost control, the minimum temp of the indoor pipe is measured and it is compared with the present temp of the indoor pipe to get the difference of the indoor pipe temperatures (=the present temperature of the indoor pipe? the minimum temperature of the indoor pipe). When the difference is 5°C or higher, defrost control is completed and heating mode operation is carried out.
- While in defrost control, if the defrost time determined before the start of defrost control is completed, defrost control stops and heating mode operation is carried out regardless of the above condition.
- When the indoor pipe temp is 42°C or above, defrost control is not carried out even if the condition is one of the defrost conditions above.
- While in defrost control, the compressor is on and the indoor fan, the outdoor fan, and the 4 way valve are off.

#### **■** Fuzzy Operation

- When any of operation mode is not selected like the moment of the power on or when 3 hrs has passed since the operation off, the operation mode is selected.
- When determining the operation mode, the compressor, the outdoor fan, and the 4 way valve are off and only the indoor fan is operated for 15 seconds. Then an operation mode is selected according to the intake air temp at that moment as follows.

• If any of the operation modes among cooling / dehumidification / heating mode operations is carried out for 10 sec or longer before Fuzzy operation, the mode before Fuzzy operation is operated.

#### 1) Fuzzy Operation for Cooling

 According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.

• At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

24°C≤ Intake Air Temp<26°C

22°C≤ Intake Air Temp<24°C

□ Intake Air Temp + 1°C

□ Intake Air Temp + 0.5°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the
  Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature
  automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

#### 2) Fuzzy Operation for Dehumidification

 According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.

• At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

24°C ≤ Intake Air Temp<26°C

22°C ≤ Intake Air Temp<24°C

18°C ≤ Intake Air Temp<22°C

18°C ≤ Intake Air Temp<22°C

□ Intake Air Temp+0.5°C

□ Intake Air Temp

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the
  Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature
  automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan repeats the low airflow speed or pause as in dehumidification operation.

#### 3) Fuzzy Operation for Heating

• According to the setting temperature selected by Fuzzy rule, when the intake air temp is 3°C or more above the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.

Compressor ON Temp
Compressor OFF Temp
Compressor OFF Temp
Compressor OFF Temp
Compressor ON Temp
Compressor ON Temp

• At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

20°C≤Intake Air Temp + 0.5°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the
  Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature
  automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is set to the high or the medium according to the intake air temperature and the setting temperature.

#### ■ Airflow Speed Selection

• The airflow speed of the indoor fan is set to high, medium, low, or chaos (auto) by the input of the airflow speed selection key on the remote control.

#### **■** On-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance starts to operate.
- The timer LED is on when the on-timer is input. It is off when the time set by the timer is reached.
- If the appliance is operating at the time set by the timer, the operation continues.

#### **■** Off-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance stops operating.
- The timer LED is on when the off-timer is input. It is off when the time set by the timer is reached.
- If the appliance is on pause at the time set by the timer, the pause continues.

#### **■** Off-Timer ↔ On-Timer Operation

When the set time is reached after the on/off time is input by the remote control, the on/off-timer operation
is carried out according to the set time.

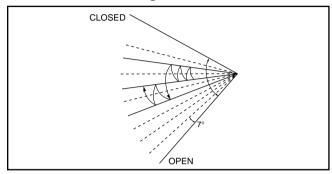
#### **■** Sleep Timer Operation

- When the sleep time is reached after <1,2,3,4,5,6,7,0(cancel) hr> is input by the remote control while in appliance operation, the operation of the appliance stops.
- While the appliance is on pause, the sleep timer mode cannot be input.
- While in cooling mode operation, 30 min later since the start of the sleep timer, the setting temperature increases by 1°C. After another 30 min elapse, it increases by 1°C again.
- When the sleep timer mode is input while in cooling cycle mode, the airflow speed of the indoor fan is set to the low.
- When the sleep timer mode is input while in heating cycle mode, the airflow speed of the indoor fan is set to the medium.

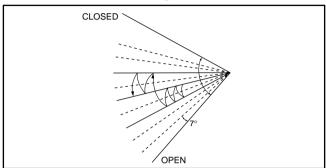
#### **■** Chaos Swing Mode

- By the Chaos Swing key input, the upper/lower vane automatically operates with the Chaos Swing or they are fixed to the desired direction.
- While in Chaos Swing mode, the angles of cooling and heating cycle operations are different.

#### < Cooling Mode >



#### < Heating Mode >



#### ■ Chaos Natural Wind Mode

• When the Chaos Natural Wind mode is selected and then operated, the high, medium, or low speed of the airflow mode is operated for 2~15 sec. randomly by the Chaos Simulation.

#### **■** Jet Cool Mode Operation

- While in heating mode or Fuzzy operation, the Jet Cool key cannot be input. When it is input while in the other mode operation (cooling, dehumidification, ventilation), the Jet Cool mode is operated.
- In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
- In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C.
- When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
- When the Jet Cool key is input, the upper/lower vanes are reset to those of the initial cooling mode and then operated in order that the air outflow could reach further.

#### ■ Forced Operation

- Operation procedures when the remote control can't be used.
- The operation will be started if the power button is pressed.
- If you want to stop operation, re-press the button.

	Room temperature ≥ 24°C	21°C ≤ Room temperature < 24°C	Room temperature < 21°C
Operating mode	Cooling	Healthy Dehumidification	Heating
Indoor FAN Speed	High	High	High
Setting Temperature	22°C	23°C	24°C

• While in forced operation, the key input by the remote control has no effect and the buzzer sounds 10 times to indicate the forced operation.

#### ■ Test operation

- During the TEST OPERATION, the unit operates in cooling mode at high speed fan, regardless of room temperature and resets in 18±1 minutes.
- During test operation, if remote controller signal is received, the unit operates as remote controller sets.
   If you want to use this operation, open the front panel upward and Press the power button let it be pressed for about 3 seconds.
- If you want to stop the operation, re-press the button.

#### Auto restart

• In case the power comes on again after a power failure, Auto Restarting Operation is the function to operate procedures automatically to the previous operating conditions.

#### **■** Air Cleaner Operation

- When an air cleaner function is selected during Air Conditioner operation
  - Plasma air cleaner function will be operated while in any operation mode with selecting the function.
  - The function is to be stopped while it is operating with selecting the function.
- When an air cleaner function is selected during operation off
  - The function will be only operated.
- When inlet grille of air conditioner is opened during plasma operation, High Voltage Generator(H.V.B) is to be stopped. When inlet grille of air conditioner is closed during plasma operation, High Voltage Generator(H.V.B) will be operated again.

#### **■** Remote Control Operation Mode

• When the remote control is selected by the slide switch on the main unit, the appliance operates according to the input by the remote control.

#### ■ Protection of the evaporator pipe from frosting

- If the indoor pipe temp is below 0°C in 7 min. after the compressor operates without any pause while in cooling cycle operation mode, the compressor and the outdoor fan are turned off in order to protect the indoor evaporator pipe from frosting.
- When the indoor pipe temp is 7°C or higher after 3 min. pause of the compressor, the compressor and the outdoor fan is turned on according to the condition of the room temperature.

#### ■ Auto Clean

Open the door on the remote control. Press the Auto Clean Button.
 Close the door on the remote control. Now each time that you press the start/stop button, the Air conditioner operates clean function automatically.

#### **■** Display Luminosity

The Display Luminosity can be adjusted by using the remote control.
 Press the start/stop button to start the unit. Open the door on the remote control, press the 2ndF button and, press display luminosity button. Display will be dark. Press the button again to set bright display.

#### **■** Buzzer Sounding Operation

- When the appliance-operation key is input by the remote control, the short "beep" sounds.
- When the appliance-pause key is input by the remote control, the long "beep—" sounds.
- When an except operation and pause key is input by the remote control, the short "beep" sounds.

## 4. Display Function

#### Signal Receptor

Each Icon turns on when the unit is operated, then the only Icon outline to be operated is bright.



**Cooling Mode** Lights up during Cooling operation. (Outline)

**Auto Operation Mode** Lights up during Auto operation. (Outline)

**Healthy Dehumidification** Lights up during Healthy Dehumidification operation. (Outline) Mode

**Heating Mode** Lights up during Heating operation. (Heat Pump model only) (Outline)

> **Defrost Mode** Lights up during Defrost control or Hot Start in Heating operation. (Outline)

Air circulation Mode Lights up during Air Circulation operation. (Outline)

Sleep Mode Lights up during Sleep Mode operation.

**Timer Mode** Lights up during Timer operation.

**Auto Cleaning Mode** Lights up during Auto Cleaning reservation.

JET COOL Jet Cool Mode Lights up during Jet Cool Operation.

Fan Speed (Low) Lights up when Fan speed is low. 

Fan Speed (Medium) Lights up when Fan speed is Medium.

**Fan Speed (High)** Lights up when Fan speed is High. 

Initial Initia Initial Initial Initial Initial Initial Initial Initial Initial

Desire temperature For cooling, dehumidification, heating modes it display Desired temperature indicator

 Cooling : 18~30°C • Al : Auto Operation Dehumidification: 18~30°C • Po : Jet Cool

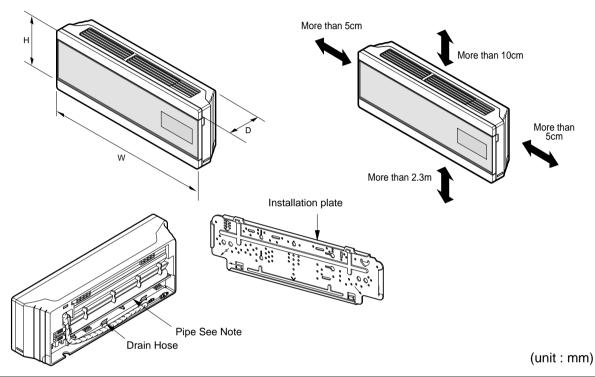
: 16~30°C • Lo : Test Mode Heating • C1 : Indoor pipe sensor error

Desire temperature Icon

Indoor temperature Icon

# 5. Dimensional Drawings

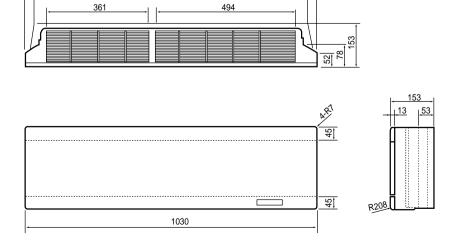
LRNV076SU\*0/LRNN076SU\*0/LRNV072SU\*0/LRNN072SU\*0 LRNV096SU\*0/LRNN096SU\*0/LRNV092SU\*0/LRNN092SU\*0 LRNV126SU\*0/LRNN126SU\*0/LRNV122SU\*0/LRNN122SU\*0 LRNV186S3\*0/LRNN186S3\*0/LRNV182S3\*0/LRNN182S3\*0 LRNV246S3\*0/LRNN246S3\*0/LRNV242S3\*0/LRNN242S3\*0



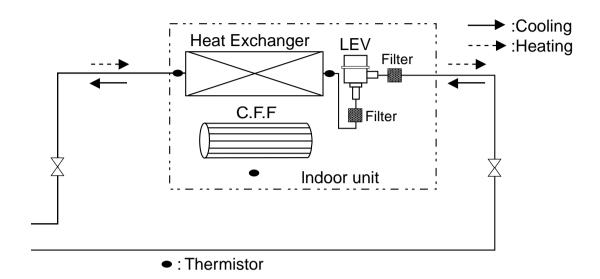
Model	W	Н	D
LRNV076SU*0/LRNN076SU*0/LRNV072SU*0/LRNN072SU*0			
LRNV096SU*0/LRNN096SU*0/LRNV092SU*0/LRNN092SU*0	1030	290	153
LRNV126SU*0/LRNN126SU*0/LRNV122SU*0/LRNN122SU*0	1030	290	155
LRNV186S3*0/LRNN186S3*0/LRNV182S3*0/LRNN182S3*0	4470	245	470
LRNV246S3*0/LRNN246S3*0/LRNV242S3*0/LRNN242S3*0	1170	315	170

1030





# **6. Piping Diagrams**



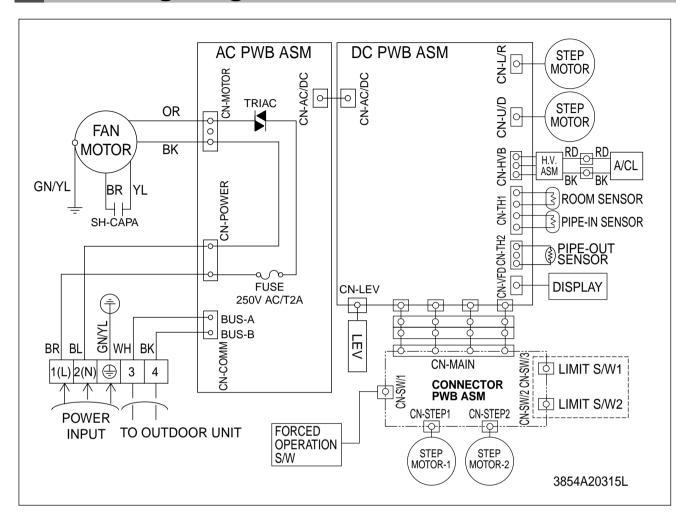
Refrigerant pipe connection port diameter

[unit: mm(inch)]

MODEL	GAS	LIQUID
LRNV076SU*0/LRNN076SU*0/LRNV072SU*0/LRNN072SU*0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV096SU*0/LRNN096SU*0/LRNV092SU*0/LRNN092SU*0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV126SU*0/LRNN126SU*0/LRNV122SU*0/LRNN122SU*0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV186S3*0/LRNN186S3*0/LRNV182S3*0/LRNN182S3*0	Ø12.7(1/2)	Ø6.35(1/4)
LRNV246S3*0/LRNN246S3*0/LRNV242S3*0/LRNN242S3*0	Ø15.88(5/8)	Ø9.52(3/8)

<sup>\*(</sup>Color):R(Mirror), M(Metal), B(Blue), D(Wood), W(White), C:Cherry

# 7. Wiring Diagrams



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	BLACK	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR	AC FAN MOTOR OUTPUT	WHITE	MOTOR OUTPUT OF PHASE CONTROL
CN-COM	COMMUNICATION	BLACK	COMMUNICATION BETWEEN INDOOR AND OUTDOOR
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-L/R	STEP MOTOR	BLUE	STEP MOTOR OUTPUT FOR LEFT/RIGHT
CN-U/D	STEP MOTOR	WHITE	STEP MOTOR OUTPUT
CN-TH1	ROOM/PIPE SENSOR	WHITE	ROOM & PIPE THERMISTOR
CN-TH2	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR
CN-SUC	STEP MOTOR(FRONT)	GRAY	FRONT PANEL STEP MOTOR
CN-HVB	AIR PURIFIER	BLUE	AIR PURIFIER OUTPUT
CN-VFD	DISPLAY	WHITE	DISPLAY OF INDOOR STATUS
CN-CON	SAFETY CONNECTION	GRAY	SAFETY OF INDOOR STATUS
CN_AC/DC	AC/DC CONNECTION	GRAY	CONNECTION BETWEEN AC PCB AND DC PCB

# 8. Disassembly of the parts

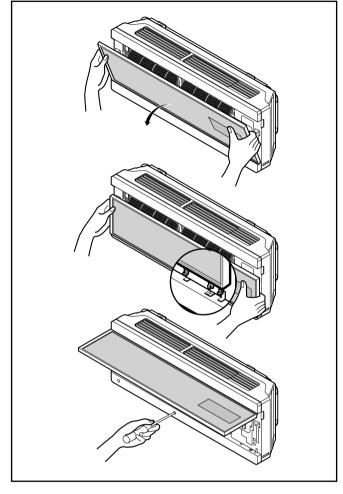
#### Warning:

Disconnect the unit from power supply before making any checks.

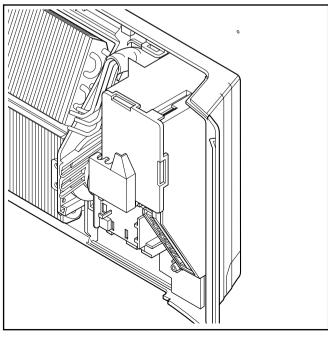
Be sure the power switch is set to "OFF".

#### To remove the Grille from the Chassis.

- Hold up Inlet Grille Horizentally.
- To remove the Grille, pull the lower left and right side of the grille toward you (slightly tilted) and lift it straight upward.
- To seperate connecter assembly and than to remove Inlet Grille assembly.

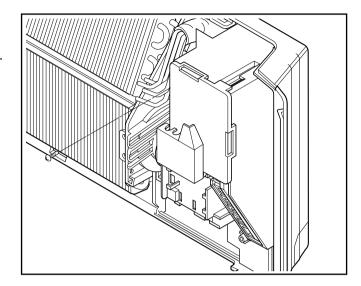


1. Before removing the control box, be sure to take out the wire screwed at the other end.



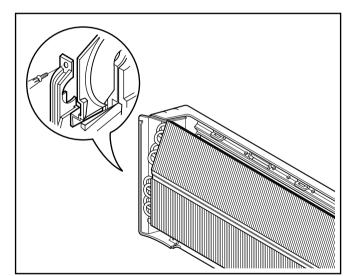
#### 2. To remove the Control Box.

- Remove securing screws.
- Pull the control box out from the chassis carefully.



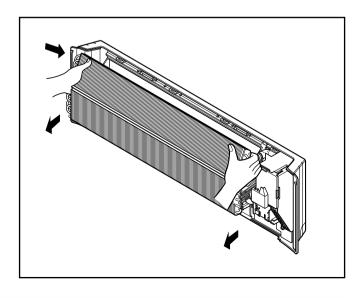
#### 3. To remove the Discharge Grille.

• Unhook the discharge grille and pull the discharge grille out from the chassis carefully.

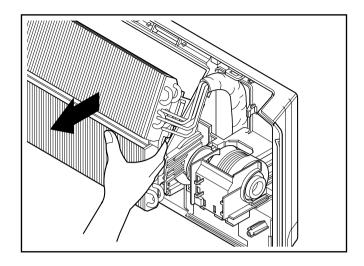


### 4. To remove the Evaporator.

• Remove 3 screws securing the evaporator(at the left 2EA in the Eva Holder, at the right 1EA).

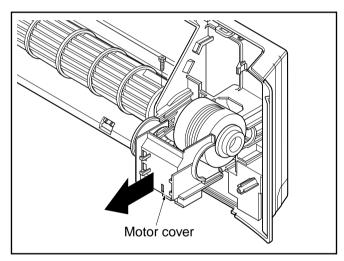


• Unhook the tab on the right inside of the chassis at the same time, slightly pull the evaporator toward you until the tab is clear of the slot.



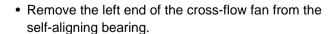
#### 5. To remove the Motor Cover

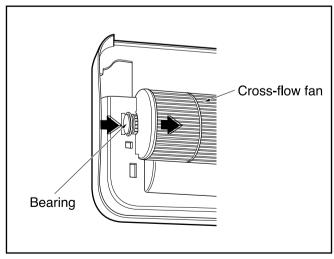
- Remove 2 securing screw.
- Pull the motor cover out from the chassis carefully.



#### 6. To remove the Cross-Flow Fan

- Loosen the screw securing the cross-flow fan to the fan motor (do not remove).
- Lift up the right side of the cross-flow fan and the fan motor, separate the fan motor from the crossflow fan.





# **Art Cool Type**

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# 1. Specifications

## 1.1 50Hz

## 1.1.1 Cooling Only

Cooling Only (50Hz)

Model		Unit	LRNV096SP*0	LRNV126SP*0
Cooling Capacity		W	2,600	3,500
		kcal/h	2,235	3,009
		Btu/h	8,871	11,942
		W	-	-
<b>Heating Capacity</b>	/	kcal/h	-	-
		Btu/h	-	-
Dimensions (W*H*D)	Rody	mm	570*568*137	570*568*137
עם ח אין פווטוטווט	Бойу	inch	22.4*22.3*5.4	22.4*22.3*5.4
Coil	Rows x Columns x FPI		1*18*21	1*18*21
	Face Area	m²	0.16	0.16
	Туре		Turbo Fan	Turbo Fan
	Motor Output	W	24	24
	Running Current	Α	1.5	1.5
Fan	Air Flow Rate(H/M/L)	cmm	7/ 6.5 /6	8.7/ 8.1 /7.5
		cfm	247/230/212	307/286/265
	Drive		Direct	Direct
	Speed control		BLDC	BLDC
Temperature Control			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			Accessory	Accessory
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
,	Drain Pipe(ID)	mm	20	20
Net Weight		kg(lbs)	12(26.5)	12(26.5)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	36/33/30	40/36/31
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission cable		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Front Panel('*' Position)			M:Metal, D:Wood, B:Blue	
Stuffing Quantity   Without S/parts		20/40ft	240/540	240/540

#### Notes:

- 1. Capacities are based on the following conditions:
  - Cooling Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
    - Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860 Btu/h = kW x 3412 cfm = m³/min x 35.3

## 1.1.2 Heat Pump

## Heat Pump (50Hz)

Model		Unit	LRNN096SP*0	LRNN126SP*0
		W	2,600	3,500
Cooling Capacity		kcal/h	2,235	3,009
		Btu/h	8,871	11,942
		W	2,925	3,938
Heating Capacity	1	kcal/h	2,515	3,385
		Btu/h	9,980	13,435
Dimensions (W*H*D)	Body	mm	570*568*137	570*568*137
(U ח W) מווופוווש	Бойу	inch	22.4*22.3*5.4	22.4*22.3*5.4
Coil	Rows x Columns x FPI		1*18*21	1*18*21
	Face Area	m²	0.16	0.16
	Туре		Turbo Fan	Turbo Fan
	Motor Output	W	24	24
	Running Current	Α	1.5	1.5
Fan	Air Flow Rate(H/M/L)	cmm	7/ 6.5 /6	8.7/ 8.1 /7.5
		cfm	247/230/212	307/286/265
	Drive		Direct	Direct
	Speed control		BLDC	BLDC
Temperature Cor			Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			Accessory	Accessory
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	v12.7(1/2)
	Drain Pipe(ID)	mm	20	20
Net Weight		kg(lbs)	12(26.5)	12(26.5)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	36/33/30	40/36/31
Power Supply		Ø / V / Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission cal		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Front Panel('*' Po			M:Metal, D:Wood, B:Blue	
Stuffing Quantity	Without S/parts	20/40ft	240/540	240/540

#### Notes:-

1. Capacities are based on the following conditions:

- Cooling

   Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

   Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero

- + Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

### Conversion Formula

## 1.2 60Hz

## 1.2.1 Cooling Only

## Cooling Only (60Hz)

Model		Unit	LRNV092SP*0	LRNV122SP*0
		W	2,600	3,500
Cooling Capacity		kcal/h	2,235	3,009
		Btu/h	8,871	11,942
		W	-	-
Heating Capacity	/	kcal/h	-	-
		Btu/h	-	-
Dimensions (M*H*D)	Pody	mm	570*568*137	570*568*137
Dimensions (W*H*D)	Бойу	inch	22.4*22.3*5.4	22.4*22.3*5.4
Coil	Rows x Columns x FPI		1*18*21	1*18*21
	Face Area	m²	0.16	0.16
	Туре		Turbo Fan	Turbo Fan
	Motor Output	W	24	24
	Running Current	Α	1.5	1.5
Fan	Air Flow Rate(H/M/L)	cmm	7/ 6.5 /6	8.7/ 8.1 /7.5
		cfm	247/230/212	307/286/265
	Drive		Direct	Direct
	Speed control		BLDC	BLDC
Temperature Co	ntrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			Accessory	Accessory
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(ID)	mm	20	20
Net Weight		kg(lbs)	12(26.5)	12(26.5)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	36/33/30	40/36/31
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60
Refrigerant Control			LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission ca	ble	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Front Panel('*' Position)			M:Metal, D:Wood, B:Blue	
Stuffing Quantity	Without S/parts	20/40ft	240/540	240/540

#### Notes:-

- 1. Capacities are based on the following conditions:
  - Cooling

     Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

     Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

    - Interconnecting Piping Length 7.5m
    - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

## 1.2.2 Heat Pump

## Heat Pump (60Hz)

Model		Unit	LRNN092SP*0	LRNN122SP*0
		W	2,600	3,500
Cooling Capacity		kcal/h	2,235	3,009
		Btu/h	8,871	11,942
		W	2,925	3,938
<b>Heating Capacity</b>	/	kcal/h	2,515	3,385
		Btu/h	9,980	13,435
Dimensions (W*H*D)	Pody	mm	570*568*137	570*568*137
Dimensions (W n D)	Бойу	inch	22.4*22.3*5.4	22.4*22.3*5.4
Coil	Rows x Columns x FPI		1*18*21	1*18*21
	Face Area	m <sup>2</sup>	0.16	0.16
	Туре		Turbo Fan	Turbo Fan
	Motor Output	W	24	24
	Running Current	Α	1.5	1.5
Fan	Air Flow Rate(H/M/L)	cmm	7/ 6.5 /6	8.7/ 8.1 /7.5
		cfm	247/230/212	307/286/265
	Drive		Direct	Direct
	Speed control		BLDC	BLDC
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			Accessory	Accessory
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø6.35(1/4)	Ø6.35(1/4)
Pipe Connections	Gas Side	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)
	Drain Pipe(ID)	mm	20	20
Net Weight		kg(lbs)	12(26.5)	12(26.5)
Noise Level (Sou	ind Press,1.5m, H/M/L)	dBA±3	36/33/30	40/36/31
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60
Refrigerant Control			LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission cable mm		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Front Panel('*' Position)			M:Metal, D:V	Vood, B:Blue
Stuffing Quantity	Without S/parts	20/40ft	240/540	240/540

1. Capacities are based on the following conditions:

- Cooling
   Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
   Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero

- Heating Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB
  - Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
  - Interconnecting Piping Length 7.5m
  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

### **Conversion Formula**

## 2. Functions

#### **Indoor Unit**

## Operation ON/OFF by Remote controller

#### Sensing the Room Temperature

• Room temperature sensor. (THERMISTOR)

#### Room temperature control

• Maintains the room temperature in accordance with the Setting temperature

#### **Starting Current Control**

• Indoor fan is delayed for 5 sec at the starting.

#### **Time Delay Safety Control**

Restarting is inhibited for approx. 3 minutes.

#### **Indoor Fan Speed Control**

• High, Med, Low, CHAOS

#### **Operation indication Lamps (LED)**

Signal Receptor

Receives the signals from the remote control. (Signal receiving sound: two short beeps or one long beep.)

Operation Indication Lamps

() On/Off : Lights up during the system operation.

☆ Sleep Mode : Lights up during Sleep Mode Auto operation.

□ Timer : Lights up during Timer operation.
 ★ Defrost Mode : Lights up during Defrost Mode or

Hot Start operation.

BB Temperature : Indicate the setting temperature.

#### **Soft Dry Operation Mode**

Intermittent operation of fan at low speed.

#### **Sleep Mode Auto Control**

- The fan is switched to low(Cooling), med(Heating) speed.
- The unit will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.

#### **Natural Air Control by CHAOS Logic**

- The fan is switched to intermittent or irregular operation
- The fan speed is automatically switched from high to low speed.

#### **Airflow Direction Control**

• The louver can be set at the desired position or swing up and down automatically.

#### Defrost(Deice) control (Heating)

 Both the indoor and outdoor fan stops during defrosting.

#### **Hot-start Control (Heating)**

 The indoor fan does not rotate until the evaporator pipe temperature will be reached at 28°C.

# ı

## 3. Operation Details

## (1) MAIN UNIT FUNCTION

#### DISPLAY

#### **Operation Indicator**

- ON while in appliance operation, OFF while in appliance pause.
- Flashing while in disconnection or short in Thermistor. (3 sec off / 0.5 sec on)

#### **Sleep Timer Indicator**

• ON while in sleep timer mode. OFF when sleep timer cancel or appliance operation pause.

#### Timer Indicator

• ON while in timer mode (on/off), OFF when timer mode is completed or canceled.

#### **Defrost Indicator**

• OFF except when hot start during heating mode operation or while in defrost control.

### **■** Cooling Mode Operation

- When the intake air temperature reaches 0.5°C below the setting temperature, the compressor and the outdoor fan stop.
- When it reaches 0.5°C above the setting temperature, they start to operate again.

Compressor ON Temperature

Setting Temperature +0.5°C

Compressor OFF Temperature

Setting Temperature -0.5°C

• While in compressor running, operating with the airflow speed set by the remote control. While in compressor not running, operating with the low airflow speed regardless of the setting.

### ■ Healthy Dehumidification Mode

• When the dehumidification operation input by the remote control is received, the intake air temperature is detected and the setting temperature is automatically set according to the intake air temperature.

26°C ≤ Intake Air Temperature

**○** 25°C

 $24^{\circ}C \leq Intake\ Intake\ Air\ Temperature\ < 26^{\circ}C$ 

Intake Air Temperature -1°C

18°C ≤ Intake Intake Air Temperature <24°C

▶ Intake Air Temperature -0.5°C

Intake Air Temperature <18°C

**O** 18°C

- While in compressor off, the indoor fan repeats low airflow speed and pause.
- While the intake air temperature is between compressor on temperature and compressor off temperature, 10-min dehumidification operation and 4-min compressor off repeat.

Compressor ON temperature

Setting Temperature +0.5°C

Compressor OFF temperature

- Setting Temperature -0.5°C
- In 10-min dehumidification operation, the indoor fan operates with the low airflow speed.

### ■ Heating Mode Operation

• When the intake air temperature reaches +3°C above the setting temperature, the compressor is turned off. When below the setting temperature, the compressor is turned on.

Compressor ON temperature

Setting temperature

Compressor OFF temperature

• Setting temperature+3°C

- While in compressor on, the indoor fan is off when the indoor pipe temperature is below 20°C, when above 28°C, it operates with the low or setting airflow speed. When the indoor pipe temperature is between 20°C and 28°C, it operates with Super-Low(while in sleep mode, with the medium airflow speed).
- While in compressor off, the indoor fan is off when the indoor pipe temperature is below 33°C, when above 35°C, it operates with the low airflow speed.
- If overloaded while in heating mode operation, in order to prevent the compressor from OLP operation, the outdoor fan is turned on/off according to the indoor pipe temperature
- While in defrost control, both of the indoor and outdoor fans are turned off.

### ■ Fuzzy Operation

- When any of operation mode is not selected like the moment of the power on or when 3 hrs has passed since the operation off, the operation mode is selected.
- When determining the operation mode, the compressor, the outdoor fan, and the 4 way valve are off and only the indoor fan is operated for 15 seconds. Then an operation mode is selected according to the intake air temperature at that moment as follows.

24°C ≤ Inatake Air Temperature

Fuzzy Operation for Cooling

21°C ≤ Inatake Air Temperature <24°C

Fuzzy Operation for Dehumidification

Inatake Air Temperature <21°C

Fuzzy Operation for Heating

• If any of the operation modes among cooling / dehumidification / heating mode operations is carried out for 10 sec or longer before Fuzzy operation, the mode before Fuzzy operation is operated.

#### 1) Fuzzy Operation for Cooling

• According to the setting temperature selected by Fuzzy rule, when the intake air temperature is 0.5°C or more below the setting temperature, the compressor is turned off. When 0.5°C or more above the setting temperature, the compressor is turned on.

Compressor ON Temperature

Setting Temperature +0.5°C

Compressor OFF Temperature

Setting Temperature + 0.5°C

• At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temperature at that time.

26°C≤ Intake Air Temperature

**O** 25°C

24°C≤ Intake Air Temperature <26°C

○ Intake Air Temperature + 1°C

22°C≤ Intake Air Temperature <24°C

▶ Intake Air Temperature + 0.5°C

18°C≤ Intake Air Temperature <22°C

▶ Intake Air Temperature

Intake Air Temperature <18°C

**○** 18°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

#### 2) Fuzzy Operation for Dehumidification

• According to the setting temperature selected by Fuzzy rule, when the intake air temperature is 0.5°C or more below the setting temperature, the compressor is turned off. When 0.5°C or more above the setting temperature, the compressor is turned on.

Compressor ON Temperature Compressor OFF Temperature Setting Temperature + 0.5°C Setting Temperature + 0.5°C

• At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temperature at that time.

26°C ≤ Intake Air Temperature
24°C ≤ Intake Air Temperature <26°C
22°C ≤ Intake Air Temperature <24°C
18°C ≤ Intake Air Temperature <22°C
Intake Air Temperature <22°C
Intake Air Temperature <18°C

25°C
Intake Air Temperature +1°C
Intake Air Temperature +0.5°C
Intake Air Temperature

18°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the
  Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature
  automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan repeats the low airflow speed or pause as in dehumidification operation.

#### 3) Fuzzy Operation for Heating

 According to the setting temperature selected by Fuzzy rule, when the intake air temperature is 3°C or more above the setting temperature, the compressor is turned off. When below the setting temperature, the compressor is turned on.

Compressor ON Temperature Compressor OFF Temperature Setting Temperature + 3°C

• At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temperature at that time.

20°C≤Intake Air Temperature C Intake Air Temperature + 0.5°C Intake Air Temperature < 20°C C 20°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is set to the high or the medium according to the intake air temperature and the setting temperature.

## ■ Airflow Speed Selection

• The airflow speed of the indoor fan is set to high, medium, low, or chaos (auto) by the input of the airflow speed selection key on the remote control.

#### ■ On-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance starts to operate.
- The timer LED is on when the on-timer is input. It is off when the time set by the timer is reached.
- If the appliance is operating at the time set by the timer, the operation continues.

#### **■** Off-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance stops operating.
- The timer LED is on when the off-timer is input. It is off when the time set by the timer is reached.
- If the appliance is on pause at the time set by the timer, the pause continues.

#### **■** Off-Timer ↔ On-Timer Operation

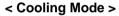
• When the set time is reached after the on/off time is input by the remote control, the on/off-timer operation is carried out according to the set time.

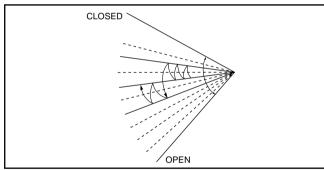
### **■** Sleep Timer Operation

- When the sleep time is reached after <1,2,3,4,5,6,7,0(cancel) hour > is input by the remote control while in appliance operation, the operation of the appliance stops.
- While the appliance is on pause, the sleep timer mode cannot be input.
- While in cooling mode operation, 30 min later since the start of the sleep timer, the setting temperature increases by 1°C. After another 30 min elapse, it increases by 1°C again.
- When the sleep timer mode is input while in cooling cycle mode, the airflow speed of the indoor fan is set to the low.
- When the sleep timer mode is input while in heating cycle mode, the airflow speed of the indoor fan is set to the medium.

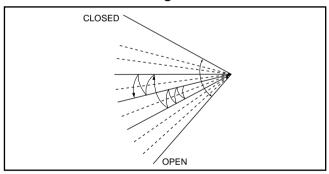
### ■ Chaos Swing Mode

- By the Chaos Swing key input, the louvers vane automatically operate with the Chaos Swing or they are fixed to the desired direction.
- While in Chaos Swing mode, the angles of cooling and heating cycle operations are different.





#### < Heating Mode >



#### ■ Jet Cool Mode Operation

- While in heating mode or Fuzzy operation, the Jet Cool key cannot be input. When it is input while in the other mode operation (cooling, dehumidification, ventilation), the Jet Cool mode is operated.
- In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
- In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C.
- When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
- During the JET HEAT function at any moment, the A/C starts to blow the hot air with side louvers closed at extremely high speed for 60 minutes setting the room temperature automatically to 30°C.

### **■** Forced Operation

- Operation procedures when the remote control can't be used.
- The operation will be started if the power button is pressed.
- If you want to stop operation, re-press the button.

	Room temperature ≥ 24°C	21°C ≤ Room temperature < 24°C	Room temperature < 21°C
Operating mode	Cooling	Healthy Dehumidification	Heating
Indoor FAN Speed	High	High	High
Setting Temperature	22°C	23°C	24°C

• While in forced operation, the key input by the remote control has no effect and the buzzer sounds 10 times to indicate the forced operation.

## Test operation

- During the TEST OPERATION, the unit operates in cooling mode at high speed fan, regardless of room temperature and resets in 18±1 minutes.
- During test operation, if remote controller signal is received, the unit operates as remote controller sets.
   If you want to use this operation, open the front panel upward and Press the power button let it be pressed for about 3 seconds.
- If you want to stop the operation, re-press the button.

#### Auto restart

• In case the power comes on again after a power failure, Auto Restarting Operation is the function to operate procedures automatically to the previous operating conditions.

#### ■ Remote Control Operation Mode

• When the remote control is selected by the slide switch on the main unit, the appliance operates according to the input by the remote control.

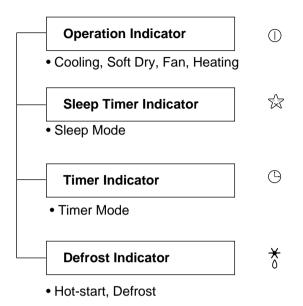
### ■ Protection of the evaporator pipe from frosting

- If the indoor pipe temperature is below 0°C in 7 min. after the compressor operates without any pause while in cooling cycle operation mode, the compressor and the outdoor fan are turned off in order to protect the indoor evaporator pipe from frosting.
- When the indoor pipe temperature is 7°C or higher after 3 min. pause of the compressor, the compressor and the outdoor fan is turned on according to the condition of the room temperature.

#### ■ Buzzer Sounding Operation

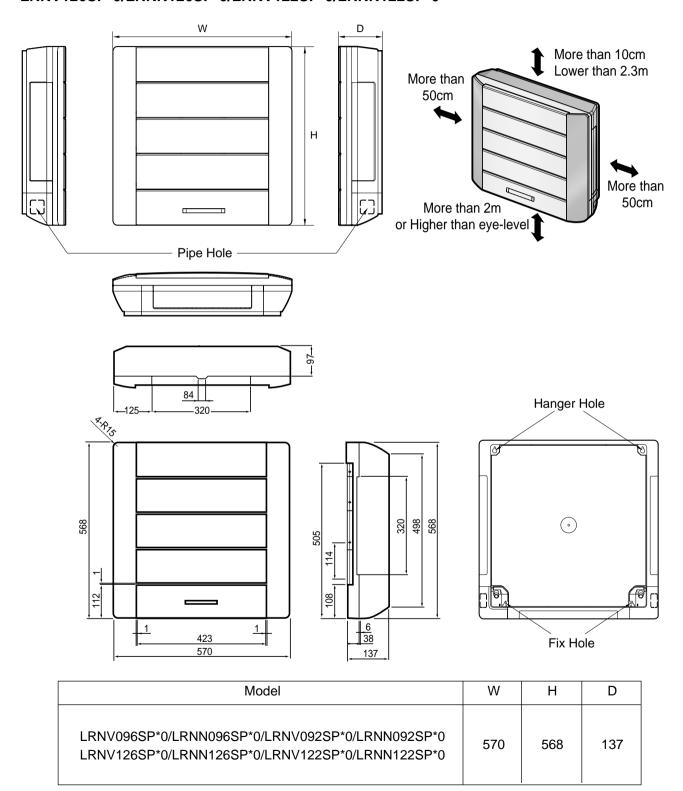
- When the appliance-operation key is input by the remote control, the short "beep-beep-" sounds.
- When the appliance-pause key is input by the remote control, the long "beep—" sounds.
- When a key is input by the remote control while the slide switch on the main unit of the appliance is on the forced operation position, the error sound "beep-beep-beep-beep-beep-" is made 10 times to indicate that the remote control signal cannot be received.

# 4. Display Function

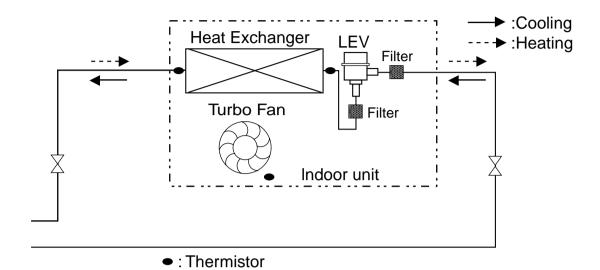


## 5. Dimensional Drawings

## LRNV096SP\*0/LRNN096SP\*0/LRNV092SP\*0/LRNN092SP\*0 LRNV126SP\*0/LRNN126SP\*0/LRNV122SP\*0/LRNN122SP\*0



# 6. Piping Diagrams



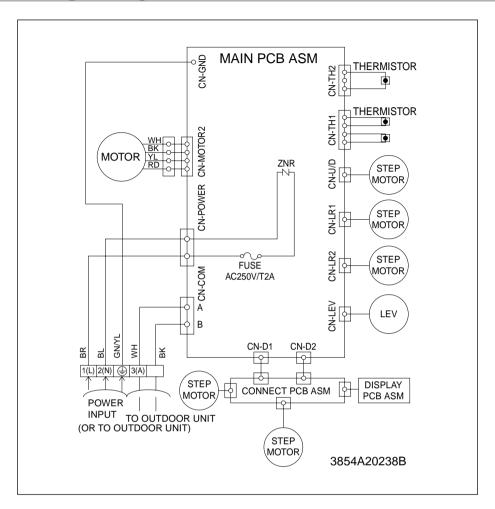
Refrigerant pipe connection port diameter

[unit: mm(inch)]

Model	Gas	Liquid
LRNV096SP*0/LRNN096SP*0/LRNV092SP*0/LRNN092SP*0 LRNV126SP*0/LRNN126SP*0/LRNV122SP*0/LRNN122SP*0	12.7(1/2)	6.35(1/4)

\*(Color): M(Metal), D(Wood), B(Blue)

# 7. Wiring Diagrams



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	WHITE	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR2	AC FAN MOTOR OUTPUT	WHITE	MOTOR OUTPUT OF PHASE CONTROL
CN-COM	COMMUNICATION	WHITE	COMMUNICATION BETWEEN INDOOR AND OUTDOOR
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-D1	DISPLAY	BLUE	DISPLAY OF INDOOR STATUS
CN-D2	DISPLAY	WHITE	DISPLAY OF INDOOR STATUS
CN-LR1	STEP MOTOR	WHITE	STEP MOTOR OUTPUT FOR LEFT/RIGHT
CN-LR2	STEP MOTOR	WHITE	STEP MOTOR OUTPUT FOR LEFT/RIGHT
CN-UD	STEP MOTOR	BLUE	STEP MOTOR OUTPUT
CN-TH1	ROOM/PIPE SENSOR	WHITE	ROOM AND PIPE THERMISTOR
CN-TH2	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR



# 8. Disassembly of the parts

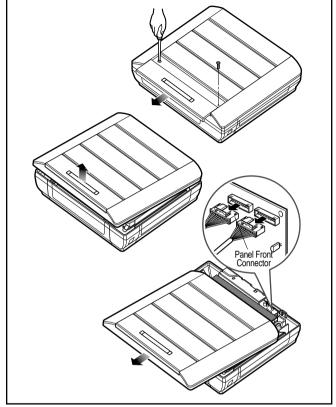
#### Warning:

Disconnect the unit from power supply before making any checks.

Be sure the power switch is set to "OFF".

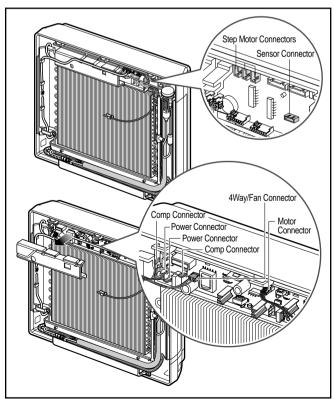
#### 1. To remove the Grille from the Chassis.

- Pull the grille bottom, the remove 2 securing screws.
- Lift the both lower parts of panel front.
- After pull down this panel a bit, separate connecting wire with product.



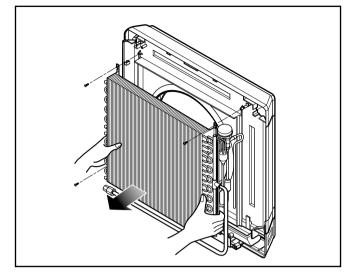
#### 2. To remove the Control Box.

- Before removing the control box, be sure to disconnect the wires from PWB.
- Pull the cover control out from the control box and disconnect other wires.
- Remove securing screws.
- Pull the control box out from the chassis carefully.



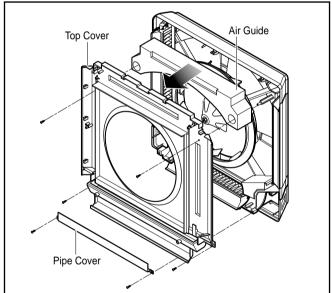
#### 3. To remove the Evaporator.

- Remove 4 screws securing the evaporator.
- Pull the evaporator out from the chassis carefully.



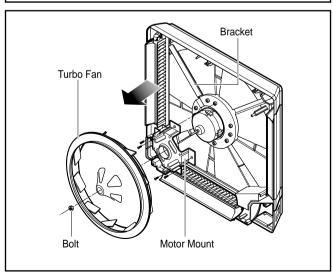
#### 4. Before removing the Turbo Fan.

- Remove the securing screws from the chassis.
- Pull the pipe cover, top cover and the air guide.



#### 5. To remove the Motor.

- Remove the securing bolt from the motor shaft.
- Pull the fan out from the motor shaft.
- Remove 4 screws securing motor mount from the chassis and lift up the motor mount and the bracket.



160 MILITIV PLUS INDOOR   Init		

## **Art Cool Type(Wide)**

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## 1. Specifications

## 1.1 50Hz

## 1.1.1 Cooling Only

Cooling Only (50Hz)

	Model	Unit		
			LRNV126SV*0 3,500	LRNV186SV*0 5,300
Cooling Capacity		W kcal/h	3,009	4,557
Cooling Capacity		Btu/h	11,942	18,084
		W	-	10,004
Heating Capacity		kcal/h		
Healing Capacity		Btu/h		
			928*522*147	928*522*147
Dimensions (W*H*D)	Body	mm inch	36.5*20.6*5.8	36.5*20.6*5.8
Coil	Davie v Calumna v EDI	inch	2*16*20	2*16*20
H	Rows x Columns x FPI	3		
	Face Area	m²	0.24	0.24
	Туре		Turbo Fan	Turbo Fan
_	Motor Output	W	20x2	20x2
	Running Current	Α	1.3x2	1.3x2
Fan	Air Flow Rate(H/M/L)	cmm	8.6 / 8 / 7.3	13.5/ 11.4 / 10.4
		cfm	304/283/258	477/403/367.5
_	Drive		Direct	Direct
	Speed control		BLDC	BLDC
Temperature Con	itrol		Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			Accessory	Accessory
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20	20
Net Weight	. , ,	kg(lbs)	15(33)	15(33)
Noise Level (Sour	nd Press,1.5m, H/M/L)	dBA±3	43/42/40	46/43/42
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission cab	le	mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Front Panel('*' Position)			M:Metal, B:B	lue, D:Wood
Stuffing Quantity		20/40ft	180/378	180/378

#### Notes:-

Capacities are based on the following conditions:

Cooling
Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

**Conversion Formula** 

## 1.1.2 Heat Pump

Heat Pump (50Hz)

Model		Unit	LRNN126SV*0	LRNN186SV*0
Cooling Capacity		W	3,500	5,300
		kcal/h	3,009	4,557
		Btu/h	11,942	18,084
		W	3,938	5,963
Heating Capacity	/	kcal/h	3,385	5,127
		Btu/h	13,435	20,345
Dimonoiono (M*H*D)	Pody	mm	928*522*147	928*522*147
Dimensions (W*H*D)	Бойу	inch	36.5*20.6*5.8	36.5*20.6*5.8
Coil	Rows x Columns x FPI		2*16*20	2*16*20
	Face Area	m²	0.24	0.24
	Туре		Turbo Fan	Turbo Fan
	Motor Output	W	20x2	20x2
	Running Current	Α	1.3x2	1.3x2
Fan	Air Flow Rate(H/M/L)	cmm	8.6 / 8 / 7.3	13.5 / 11.4 / 10.4
		cfm	304/283/258	477/403/367.5
	Drive		Direct	Direct
	Speed control		BLDC	BLDC
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			Accessory	Accessory
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20	20
Net Weight		kg(lbs)	15(33)	15(33)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	43/42/40	46/43/42
Power Supply		Ø/V/Hz	1 / 220 ~ 240 / 50	1 / 220 ~ 240 / 50
Refrigerant Control			LEV	LEV
Power cable		mm²	CV2.0 X 3C	CV2.0 X 3C
Transmission ca		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Front Panel('*' Po			M:Metal, B:B	· · · · · · · · · · · · · · · · · · ·
Stuffing Quantity	Without S/parts	20/40ft	180/378	180/378

#### Notes:-

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

• Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

• Interconnecting Piping Length 7.5m

• Level Difference of Zero

Heating • Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB • Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB

• Interconnecting Piping Length 7.5m

• Level Difference of Zero

2. Capacities are net capacities

3. Due to our policy of innovation some specifications may be changed without notification

4. L.E.V.: Linear Expansion Valve

#### **Conversion Formula**

## 1.2 60Hz

## 1.2.1 Cooling Only

Cooling Only (60Hz)

Model		Unit	LRNV122SV*0	LRNV182SV*0
		W	3,500	5,300
Cooling Capacity		kcal/h	3,009	4,557
		Btu/h	11,942	18,084
		W	-	-
Heating Capacity	/	kcal/h	-	-
		Btu/h	-	-
Dimensions (W*H*D)	Rody	mm	928*522*147	928*522*147
Difficitions (W 11 D)	Бойу	inch	36.5*20.6*5.8	36.5*20.6*5.8
Coil	Rows x Columns x FPI		2*16*20	2*16*20
	Face Area	m <sup>2</sup>	0.24	0.24
	Туре	,	Turbo Fan	Turbo Fan
	Motor Output	W	20x2	20x2
	Running Current	Α	1.3x2	1.3x2
Fan	Air Flow Rate(H/M/L)	cmm	8.6 / 8 / 7.3	13.5 / 11.4 / 10.4
		cfm	304/283/258	477/403/367.5
	Drive		Direct	Direct
	Speed control		BLDC	BLDC
Temperature Co			Microprocessor, Thermostat for cooling	Microprocessor, Thermostat for cooling
Sound Absorbing	g Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			Accessory	Accessory
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20	20
Net Weight		kg(lbs)	15(33)	15(33)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	43/42/40	46/43/42
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60
Refrigerant Control			LEV	LEV
Power cable		mm <sup>2</sup>	CV2.0 X 3C	CV2.0 X 3C
Transmission ca		mm <sup>2</sup>	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Front Panel('*' Po			M:Metal, B:B	•
Stuffing Quantity	Without S/parts	20/40ft	180/378	180/378

#### Notes:-

1. Capacities are based on the following conditions:

- Cooling

   Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

   Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

   Interconnecting Piping Length 7.5m

  - Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

#### Conversion Formula

## 1.2.2 Heat Pump

#### Heat Pump (60Hz)

	Model	Unit	LRNN122SV*0	LRNN182SV*0
		W	3,500	5,300
Cooling Capacity		kcal/h	3,009	4,557
		Btu/h	11,942	18,084
		W	3,938	5,963
Heating Capacity	1	kcal/h	3,385	5,127
		Btu/h	13,435	20,345
Dimensions (W*H*D)	Pody	mm	928*522*147	928*522*147
Dilliensions (W H D)	Бойу	inch	36.5*20.6*5.8	36.5*20.6*5.8
Coil	Rows x Columns x FPI		2*16*20	2*16*20
	Face Area	m <sup>2</sup>	0.24	0.24
	Туре		Turbo Fan	Turbo Fan
	Motor Output	W	20x2	20x2
	Running Current	Α	1.3x2	1.3x2
Fan	Air Flow Rate(H/M/L)	cmm	8.6 / 8 / 7.3	13.5 / 11.4 / 10.4
		cfm	304/283/258	477/403/367.5
	Drive		Direct	Direct
	Speed control		BLDC	BLDC
Temperature Co	ntrol		Microprocessor, Thermostat for cooling and heating	Microprocessor, Thermostat for cooling and heating
Sound Absorbing	Thermal Insulation Ma	aterial	Foamed polystrene	Foamed polystrene
Air Filter			Accessory	Accessory
Safety Device			Fuse	Fuse
	Liquid Side	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)
Pipe Connections	Gas Side	mm(inch)	Ø15.88(5/8)	Ø15.88(5/8)
	Drain Pipe(ID)	mm	20	20
Net Weight		kg(lbs)	15(33)	15(33)
Noise Level (Sound Press,1.5m, H/M/L)		dBA±3	43/42/40	46/43/42
Power Supply		Ø/V/Hz	1 / 220 / 60	1 / 220 / 60
Refrigerant Control			LEV	LEV
Power cable	Power cable		CV2.0 X 3C	CV2.0 X 3C
Transmission cal		mm²	CVV-SB 1.25 X 2C	CVV-SB 1.25 X 2C
Front Panel('*' Position)			M:Metal, B:Blue, D:Wood	
Stuffing Quantity	Without S/parts	20/40ft	180/378	180/378

#### Notes:-

1. Capacities are based on the following conditions:

Cooling • Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- Interconnecting Piping Length 7.5m
- Level Difference of Zero

Heating • Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB • Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB

- Interconnecting Piping Length 7.5m
- Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.: Linear Expansion Valve

## Conversion Formula

## 2. Functions

#### **Indoor Unit**

#### Operation ON/OFF by Remote controller

#### **Sensing the Room Temperature**

• Room temperature sensor. (THERMISTOR)

### Room temperature control

• Maintains the room temperature in accordance with the Setting Temp.

### **Starting Current Control**

• Indoor fan is delayed for 5 sec at the starting.

#### **Time Delay Safety Control**

• Restarting is inhibited for approx. 3 minutes.

#### **Indoor Fan Speed Control**

• High, Med, Low, CHAOS

### **Operation indication Lamps (LED)**

Signal Receptor

Receives the signals from the remote control.(Signal receiving sound: two short beeps or one long beep.)

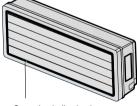
Operation Indication Lamps

On/Off : Lights up during the system operation.

Sleep Mode : Lights up during Sleep Mode Auto operation.

□ Timer : Lights up during Timer operation.★ Defrost Mode : Lights up during Defrost Mode or

Hot Start operation.



Operation indication lamps

#### **Soft Dry Operation Mode**

Intermittent operation of fan at low speed.

#### **Sleep Mode Auto Control**

- The fan is switched to low(Cooling), med(Heating) speed.
- The unit will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.

### **Natural Air Control by CHAOS Logic**

- The fan is switched to intermittent or irregular operation
- The fan speed is automatically switched from high to low speed.

#### **Airflow Direction Control**

• The louver can be set at the desired position or swing up and down automatically.

#### Defrost(Deice) control (Heating)

 Both the indoor and outdoor fan stops during defrosting.

#### **Hot-start Control (Heating)**

 The indoor fan does not rotate until the evaporator pipe temperature will be reached at 28°C.



## 3. Operation Details

#### 1. MAIN UNIT FUNCTION

#### • DISPLAY

#### Operation Indicator

- ON while in appliance operation, OFF while in appliance pause.
- Flashing while in disconnection or short in Thermistor. (3 sec off / 0.5 sec on)

#### Sleep Timer Indicator

• ON while in sleep timer mode, OFF when sleep timer cancel or appliance operation pause.

#### Timer Indicator

• ON while in timer mode (on/off), OFF when timer mode is completed or canceled.

#### **Defrost Indicator**

• OFF except when hot start during heating mode operation or while in defrost control.

## ■ Cooling Mode Operation

- When the intake air temperature reaches 0.5°C below the setting temp, the compressor and the outdoor fan
- When it reaches 0.5°C above the setting temp, they start to operate again.

Compressor ON Temp

Setting Temp+0.5°C

Compressor OFF Temp

Setting Temp-0.5°C

· While in compressor running, operating with the airflow speed set by the remote control. While in compressor not running, operating with the low airflow speed regardless of the setting.

### ■ Healthy Dehumidification Mode

• When the dehumidification operation input by the remote control is received, the intake air temperature is detected and the setting temp is automatically set according to the intake air temperature.

26°C ≤ Intake Air Temp

○ 25°C

24°C ≤ Intake Intake Air Temp<26°C

Intake Air Temp-1°C

18°C ≤ Intake Intake Air Temp<24°C

▶ Intake Air Temp-0.5°C

Intake Air Temp<18°C

○ 18°C

- While in compressor off, the indoor fan repeats low airflow speed and pause.
- While the intake air temp is between compressor on temp, and compressor off temp., 10-min dehumidification operation and 4-min compressor off repeat.

Compressor ON Temp.

Setting Temp+0.5°C

In 10-min dehumidification operation, the indoor fan operates with the low airflow speed.

### ■ Heating Mode Operation

- When the intake air temp reaches +3°...above the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.
- Compressor ON Temp. Setting Temp.
- While in compressor on, the indoor fan is off when the indoor pipe temp. is below 20°C, when above 28°C, it operates with the low or setting airflow speed. When the indoor pipe temp is between 20°C and 28°C, it operates with Super-Low(while in sleep mode, with the medium airflow speed).
- While in compressor off, the indoor fan is off when the indoor pipe temp is below 33°C, when above 35°C, it operates with the low airflow speed.
- If overloaded while in heating mode operation, in order to prevent the compressor from OLP operation, the outdoor fan is turned on/off according to the indoor pipe temp.
- While in defrost control, both of the indoor and outdoor fans are turned off.

#### ■ Defrost Control

- While in heating mode operation in order to protect the evaporator pipe of the outdoor unit from freezing, reversed to cooling cycle to defrost the evaporator pipe of the outdoor unit.
- After 40 min heating mode operation, at 4 min interval, whether to carry out defrost control or not and the time of defrost control are determined according to the following conditions.
- 1) While in heating mode operation, the maximum of the indoor pipe temperature is measured and it is compared with the present indoor pipe temperature to get the difference of the indoor pipe temperatures (=the maximum temperature of indoor pipe? the present temperature of indoor pipe), according to which, whether to carry out defrost control or not is determined.
- 2) According to the need of defrost control shown above and the elapsed time of heating mode operation at that moment, the defrost control time is determined.
- 3) When the determined time of defrost control is below 7 min, heating mode operation continues without carrying out defrost control. According to the procedure stated above, the determination is made again. When the defrost control time is 7 min or longer, defrost control is then carried out.
- While in defrost control, the minimum temp of the indoor pipe is measured and it is compared with the present temp of the indoor pipe to get the difference of the indoor pipe temperatures (=the present temperature of the indoor pipe? the minimum temperature of the indoor pipe). When the difference is 5°C or higher, defrost control is completed and heating mode operation is carried out.
- While in defrost control, if the defrost time determined before the start of defrost control is completed, defrost control stops and heating mode operation is carried out regardless of the above condition.
- When the indoor pipe temp is 42°C or above, defrost control is not carried out even if the condition is one of the defrost conditions above.
- While in defrost control, the compressor is on and the indoor fan, the outdoor fan, and the 4 way valve are off.

### **■** Fuzzy Operation

- When any of operation mode is not selected like the moment of the power on or when 3 hrs has passed since the operation off, the operation mode is selected.
- When determining the operation mode, the compressor, the outdoor fan, and the 4 way valve are off and only the indoor fan is operated for 15 seconds. Then an operation mode is selected according to the intake air temp at that moment as follows.

• If any of the operation modes among cooling / dehumidification / heating mode operations is carried out for 10 sec or longer before Fuzzy operation, the mode before Fuzzy operation is operated.

#### 1) Fuzzy Operation for Cooling

 According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.

• At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

24°C≤ Intake Air Temp<26°C

22°C≤ Intake Air Temp<24°C

□ Intake Air Temp + 1°C

□ Intake Air Temp + 0.5°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the
  Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature
  automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is automatically selected according to the temperature.

#### 2) Fuzzy Operation for Dehumidification

 According to the setting temperature selected by Fuzzy rule, when the intake air temp is 0.5°C or more below the setting temp, the compressor is turned off. When 0.5°C or more above the setting temp, the compressor is turned on.

• At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

24°C ≤ Intake Air Temp<26°C

22°C ≤ Intake Air Temp<24°C

18°C ≤ Intake Air Temp<22°C

18°C ≤ Intake Air Temp<22°C

□ Intake Air Temp+0.5°C

□ Intake Air Temp

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the
  Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature
  automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan repeats the low airflow speed or pause as in dehumidification operation.

#### 3) Fuzzy Operation for Heating

• According to the setting temperature selected by Fuzzy rule, when the intake air temp is 3°C or more above the setting temp, the compressor is turned off. When below the setting temp, the compressor is turned on.

Compressor ON Temp
Compressor OFF Temp
Compressor OFF Temp
Compressor OFF Temp
Compressor ON Temp
Compressor ON Temp

• At the beginning of Fuzzy mode operation, the setting temperature is automatically selected according to the intake air temp at that time.

20°C≤Intake Air Temp + 0.5°C

- When the Fuzzy key (Temperature Control key) is input after the initial setting temperature is selected, the Fuzzy key value and the intake air temperature at that time are compared to select the setting temperature automatically according to the Fuzzy rule.
- While in Fuzzy operation, the airflow speed of the indoor fan is set to the high or the medium according to the intake air temperature and the setting temperature.

### ■ Airflow Speed Selection

• The airflow speed of the indoor fan is set to high, medium, low, or chaos (auto) by the input of the airflow speed selection key on the remote control.

### **■** On-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance starts to operate.
- The timer LED is on when the on-timer is input. It is off when the time set by the timer is reached.
- If the appliance is operating at the time set by the timer, the operation continues.

#### **■** Off-Timer Operation

- When the set time is reached after the time is input by the remote control, the appliance stops operating.
- The timer LED is on when the off-timer is input. It is off when the time set by the timer is reached.
- If the appliance is on pause at the time set by the timer, the pause continues.

#### ■ Off-Timer ↔ On-Timer Operation

 When the set time is reached after the on/off time is input by the remote control, the on/off-timer operation is carried out according to the set time.

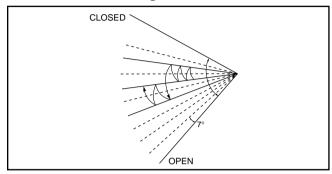
#### **■** Sleep Timer Operation

- When the sleep time is reached after <1,2,3,4,5,6,7,0(cancel) hr> is input by the remote control while in appliance operation, the operation of the appliance stops.
- While the appliance is on pause, the sleep timer mode cannot be input.
- While in cooling mode operation, 30 min later since the start of the sleep timer, the setting temperature increases by 1°C. After another 30 min elapse, it increases by 1°C again.
- When the sleep timer mode is input while in cooling cycle mode, the airflow speed of the indoor fan is set to the low.
- When the sleep timer mode is input while in heating cycle mode, the airflow speed of the indoor fan is set to the medium.

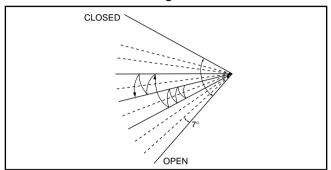
### **■** Chaos Swing Mode

- By the Chaos Swing key input, the louvers vane automatically operate with the Chaos Swing or they are fixed to the desired direction.
- While in Chaos Swing mode, the angles of cooling and heating cycle operations are different.

#### < Cooling Mode >



#### < Heating Mode >



### ■ Jet Cool Mode Operation (H/P Model)

- While in heating mode or Fuzzy operation, the Jet Cool key cannot be input. When it is input while in the other mode operation (cooling, dehumidification, ventilation), the Jet Cool mode is operated.
- In the Jet Cool mode, the indoor fan is operated at super-high speed for 30 min at cooling mode operation.
- In the Jet Cool mode operation, the room temperature is controlled to the setting temperature, 18°C.
- When the sleep timer mode is input while in the Jet Cool mode operation, the Jet Cool mode has the priority.
- During the JET HEAT function at any moment, the A/C starts to blow the hot air with side louvers closed at extremely high speed for 60 minutes setting the room temp. automatically to 30°C.

#### ■ Forced Operation

- Operation procedures when the remote control can't be used.
- The operation will be started if the power button is pressed.
- If you want to stop operation, re-press the button.

	Room temperature ≥ 24°C	21°C ≤ Room temperature < 24°C	Room temperature < 21°C
Operating mode	Cooling	Healthy Dehumidification	Heating
Indoor FAN Speed	High	High	High
Setting Temperature	22°C	23°C	24°C

• While in forced operation, the key input by the remote control has no effect and the buzzer sounds 10 times to indicate the forced operation.

#### **■** Test operation

- During the TEST OPERATION, the unit operates in cooling mode at high speed fan, regardless of room temperature and resets in 18±1 minutes.
- During test operation, if remote controller signal is received, the unit operates as remote controller sets. If you want to use this operation, open the front panel upward and Press the power button let it be pressed for about 3 seconds.
- If you want to stop the operation, re-press the button.

#### Auto restart

• In case the power comes on again after a power failure, Auto Restarting Operation is the function to operate procedures automatically to the previous operating conditions.

### ■ Remote Control Operation Mode

• When the remote control is selected by the slide switch on the main unit, the appliance operates according to the input by the remote control.

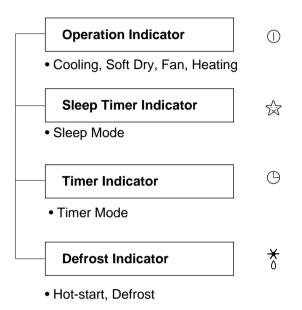
### ■ Protection of the evaporator pipe from frosting

- If the indoor pipe temp is below 0°C in 7 min. after the compressor operates without any pause while in cooling cycle operation mode, the compressor and the outdoor fan are turned off in order to protect the indoor evaporator pipe from frosting.
- When the indoor pipe temp is 7°C or higher after 3 min. pause of the compressor, the compressor and the outdoor fan is turned on according to the condition of the room temperature.

### **■** Buzzer Sounding Operation

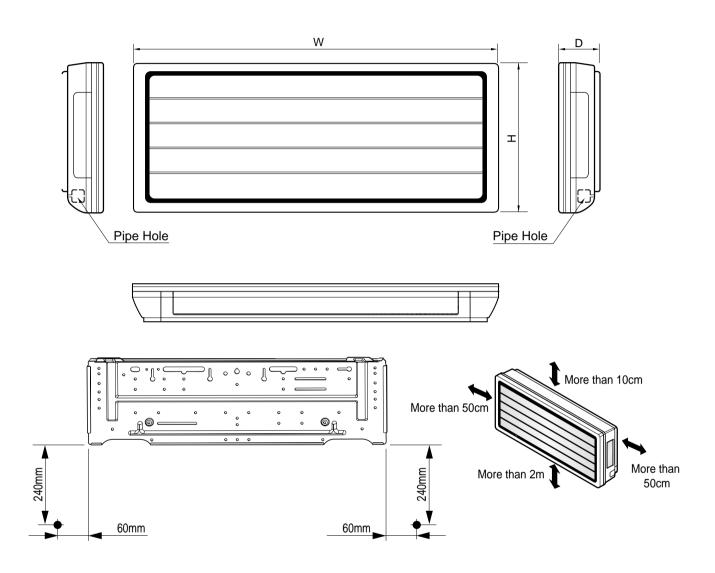
- When the appliance-operation key is input by the remote control, the short "beep-beep-" sounds.
- When the appliance-pause key is input by the remote control, the long "beep—" sounds.
- When a key is input by the remote control while the slide switch on the main unit of the appliance is on the forced operation position, the error sound "beep-beep-beep-beep-beep-" is made 10 times to indicate that the remote control signal cannot be received.

# 4. Display Function



# 5. Dimensional Drawings

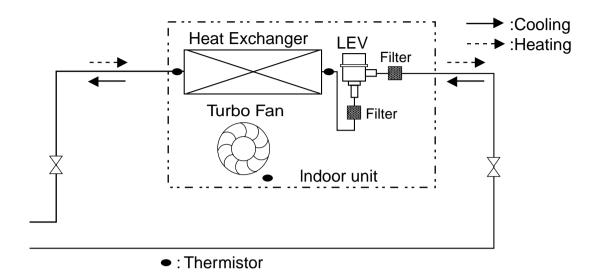
## LRNV126SV\*0/LRNN126SV\*0/LRNV122SV\*0/LRNN122SV\*0 LRNV186SV\*0/LRNN186SV\*0/LRNV182SV\*0/LRNN182SV\*0



(Unit: mm)

Model	W	Н	D
LRNV126SV*0/LRNN126SV*0 LRNV122SV*0/LRNN122SV*0 LRNV186SV*0/LRNN186SV*0 LRNV182SV*0/LRNN182SV*0	928	522	147

# **6. Piping Diagrams**



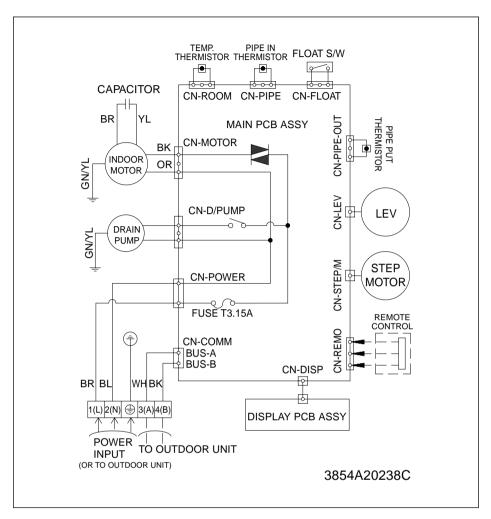
Refrigerant pipe connection port diameter

[unit: mm(inch)]

Model	Gas	Liquid
LRNV126SV*0/LRNN126SV*0/LRNV122SV*0/LRNN122SV*0	Ø15.88(5/8)	Ø9.52(3/8)
LRNV186SV*0/LRNN186SV*0/LRNV182SV*0/LRNN182SV*0	Ø15.88(5/8)	Ø9.52(3/8)

\*(Color): M(Metal), D(Wood), B(Blue)

## 7. Wiring Diagrams



CONNECTOR NUMBER	SPEC	COLOR	DESCRIPTION
CN-POWER	AC POWER SUPPLY	WHITE	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR2	AC FAN MOTOR OUTPUT	WHITE	MOTOR OUTPUT OF PHASE CONTROL
CN-COM	COMMUNICATION	WHITE	COMMUNICATION BETWEEN INDOOR AND OUTDOOR
CN-LEV	LEV OUTPUT	WHITE	LEV CONTROL OUTPUT
CN-D1	DISPLAY	BLUE	DISPLAY OF INDOOR STATUS
CN-D2	DISPLAY	WHITE	DISPLAY OF INDOOR STATUS
CN-LR1	STEP MOTOR	WHITE	STEP MOTOR OUTPUT FOR LEFT/RIGHT
CN-LR2	STEP MOTOR	WHITE	STEP MOTOR OUTPUT FOR LEFT/RIGHT
CN-UD	STEP MOTOR	BLUE	STEP MOTOR OUTPUT
CN-TH1	ROOM/PIPE SENSOR	WHITE	ROOM AND PIPE THERMISTOR
CN-TH2	DISCHARGE PIPE SENSOR	RED	DISCHARGE PIPE THERMISTOR
CN-MOTOR1	AC FAN MOTOR OUTPUT	YELLOW	MOTOR OUTPUT OF PHASE CONTROL

# ı

## 8. Disassembly of the parts

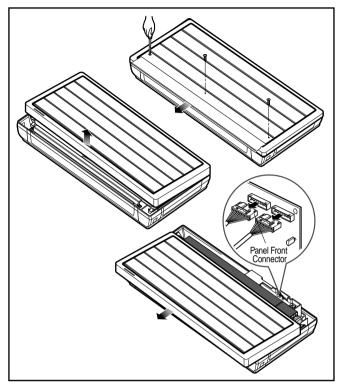
#### Warning:

Disconnect the unit from power supply before making any checks.

Be sure the power switch is set to "OFF".

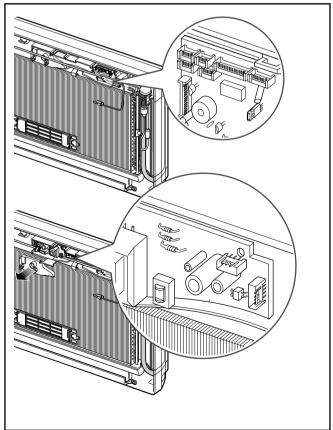
#### 1. To remove the Grille from the Chassis.

- Push mark[ ] on the grille bottom then pull it down and remove 3 securing screws.
- Lift the both lower parts of panel front.
- After pull down this panel a bit, separate connecting wire with product.



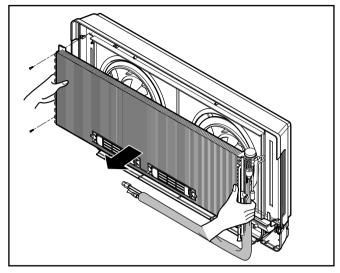
#### 2. To remove the Control Box.

- Before removing the control box, be sure to disconnect the wires from PWB.
- Pull the cover control out from the control box and disconnect other wires.
- Remove securing screws.
- Pull the control box out from the chassis carefully.



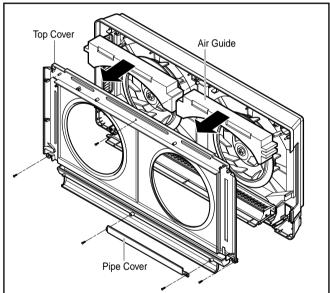
### 3. To remove the Evaporator.

- Remove 4 screws securing the evaporator.
- Pull the evaporator out from the chassis carefully.



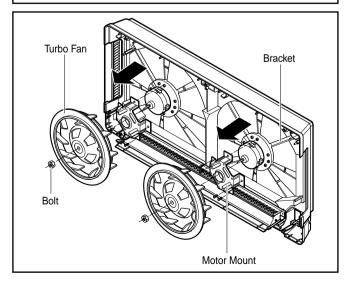
### 4. Before removing the Turbo Fan.

- Remove the securing screws from the chassis.
- Pull the pipe cover, top cover and the air guide.



#### 5. To remove the Motor.

- Remove the securing bolt from the motor shaft.
- Pull the fan out from the motor shaft.
- Remove 4 screws securing motor mount from the chassis and lift up the motor mount and the bracket.



# **Outdoor unit**

## **LRUV/LRUN Series**

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# 1. Specifications

# 1.1 50Hz

# 1.1.1 Cooling Only 50Hz

380V, Cooling Only(50Hz)

	HP		5	6	8	10
Model Name	Model Name Combination (		LRUV508T0	LRUV608T0	LRUV808T0	LRUV1008T0
		Independent Unit	LRUV508T0	LRUV608T0	LRUV808T0	LRUV1008T0
Capacity	Cooling	W	14,000	16,000	22,400	28,000
		kcal/h	12,000	13,800	19,300	24,100
		Btu/h	47,800	54,600	76,400	95,500
	Heating	W	-	-	-	-
	-	kcal/h	-	-	-	-
		Btu/h	-	-	-	-
Input	Cooling	kW	4.6	5.7	7.1	8.9
•	Heating	kW	-	-	-	-
Casing Color			WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll	Scroll
·	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87	77.87	77.87	77.87+110
	Number of Revolution	r.p.m	3472	3472	3472	3472, 2900
	Motor Output x Number	W	4309x1	4309x1	4309x1	4309+4900
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10	2325 ± 10	2325 ± 10	2325 ± 10, 2325 ± 10
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x1	291x1	291x1	291x2
	Air Flow Rate(High)	cmm	90	90	90	90x2
		cfm	3177	3177	3177	3177x2
	Drive	<b>-</b>	Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)
	Gas Pipes	mm(inch)	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)
Dimensions (W*H*		mm	806 * 1555 * 730	806 * 1555 * 730	806 * 1555 * 730	1280 * 1555 * 730
	- /	inch	31.7 * 61.2 * 28.7	31.7 * 61.2 * 28.7	31.7 * 61.2 * 28.7	50.4 * 61.2 * 28.7
Net Weight		kg	150	150	150	300
		lbs	330.7	330.7	330.7	661.4
Power Supply Cab	le	mm²	CV 5.5X5C	CV 5.5X5C	CV 5.5X5C	CV 8X5C
Transmission Cab		mm²	CVV-SB 1.25X2C		CVV-SB 1.25X2C	
Refigerant	Refigerant name	1/1111	R22	R22	R22	R22
	Control		L.E.V	L.E.V	L.E.V	L.E.V
		Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	

- 1. Capacities are based on the following conditions:
  - Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
    - \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
    - \* Interconnecting Piping Length 7.5m
    - \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

	HP		12	14	16	18
Model Name		Combination Unit	LRUV1208T0	LRUV1408T0	LRUV1608TS0	LRUV1808TS0
			LRUV1208T0	LRUV1408T0	LRUV808TS0	LRUV1008TS0
		'			LRUC808TS0	LRUC808TS0
Capacity	Cooling	W	33,600	39,200	44,800	50,400
, ,		kcal/h	28,900	33,700	38,500	43,300
		Btu/h	114,700	133,800	152,900	172,000
	Heating	W	-	-	-	-
		kcal/h	-	-	-	-
		Btu/h	-	-	-	-
Input	Cooling	kW	11.8	13.9	14	15.9
	Heating	kW	-	-	-	-
Casing Color	1		WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110	77.87+110	(77.87+110)+(110+110)	
	Number of Revolution	r.p.m	3472, 2900	3472, 2900	(3472, 2900)+(2900, 2900)	(3472, 2900)+(2900, 2900)
	Motor Output x Number	W	4309+4900	4309+4900	(4309+4900)+(4900+4900)	(4309+4900)+(4900+4900)
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, 2325 ± 10	2325 ± 10, 2325 ± 10	2325 ± 10, (2325 ± 10)x3	2325 ± 10, (2325 ± 10)x3
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2	291x2	291x2+271x2	291x2+271x2
	Air Flow Rate(High)	cmm	90x2	90x2	90x4	90x4
		cfm	3177x2	3177x2	3177x4	3177x4
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Top	Top
Pipe Connctions	Liquid Pipes	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø19.05(3/4)	Ø19.05(3/4)
•	Gas Pipes	mm(inch)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø38.1(1 1/2)	Ø38.1(1 1/2)
Dimensions (W*H		mm	1280 * 1555 * 730	1280 * 1555 * 730	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x2
,	,	inch	50.4 * 61.2 * 28.7	50.4 * 61.2 * 28.7	(50.4 * 61.2 * 28.7)x2	(50.4 * 61.2 * 28.7)x2
Net Weight		kg	300	300	300x2	300x2
		lbs	661.4	661.4	661.4x2	661.4x2
Power Supply Cab	ole	mm²	CV 8X5C	CV 8X5C	CV 14X5C	CV 14X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name	1	R22	R22	R22	R22
<b>J</b> =	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply		Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50

#### Notes:

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

\* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- \* Interconnecting Piping Length 7.5m \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

### Conversion Formula

	HP		20	22	24	26
Model Name		Combination Unit	LRUV2008TS0	LRUV2208TS0	LRUV2408TS0	LRUV2608TR0
		Independent Unit	LRUV1008TS0	LRUV1208TS0	LRUV1208TS0	LRUV1008TR0
			LRUC1008TS0	LRUC1008TS0	LRUC1208TS0	LRUC808TR0
						LRUC808TR0
Capacity	Cooling	W	56,000	61,600	67,200	72,800
		kcal/h	48,200	53,000	57,800	62,600
		Btu/h	191,100	210,200	229,300	248,400
	Heating	W	-	-	-	-
		kcal/h	-	-	-	-
		Btu/h	-	-	-	-
Input	Cooling	kW	17.8	20.7	23.6	22.9
	Heating	kW	-	-	-	-
Casing Color			WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll	Scroll
	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	(77.87+110)+(110+110)	(77.87+110)+(110+110)	(77.87+110)+(110+110)	(77.87+110)+(110+110)x2
	Number of Revolution	r.p.m	(3472, 2900)+(2900, 2900)	(3472, 2900)+(2900, 2900)	(3472, 2900)+(2900, 2900)	(3472, 2900)+(2900, 2900)x2
	Motor Output x Number	W	(4309+4900)+(4900+4900)	(4309+4900)+(4900+4900)	(4309+4900)+(4900+4900)	(4309+4900)+(4900+4900)x2
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, (2325 ± 10)x3	2325 ± 10, (2325 ± 10)x3	2325 ± 10, (2325 ± 10)x3	2325 ± 10, (2325 ± 10)x5
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x2	291x2+271x2	291x2+271x2	291x2+271x4
	Air Flow Rate(High)	cmm	90x4	90x4	90x4	90x6
		cfm	3177x4	3177x4	3177x4	3177x6
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø22.2(7/8)
	Gas Pipes	mm(inch)	Ø38.1(1 1/2)	Ø38.1(1 1/2)	Ø38.1(1 1/2)	Ø44.5(1 3/4)
Dimensions (W*H*	*D)	mm	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x3
		inch	(50.4 * 61.2 * 28.7)x2	(50.4 * 61.2 * 28.7)x2	(50.4 * 61.2 * 28.7)x2	(50.4 * 61.2 * 28.7)x3
Net Weight		kg	300x2	300x2	300x2	300x3
		lbs	661.4x2	661.4x2	661.4x2	661.4x3
Power Supply Cab		mm²	CV 14X5C	CV 14X5C	CV 14X5C	CV 14X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	
Refigerant	Refigerant name		R22	R22	R22	R22
-	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply		Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### Conversion Formula

	HP		28	30	32	34
Model Name		Combination Unit	LRUV2808TR0	LRUV3008TR0	LRUV3208TR0	LRUV3408TR0
		Independent Unit	LRUV808TR0	LRUV1008TR0	LRUV1208TR0	LRUV1408TR0
			LRUC1008TR0	LRUC1008TR0	LRUC1008TR0	LRUC1008TR0
			LRUC1008TR0	LRUC1008TR0	LRUC1008TR0	LRUC1008TR0
Capacity	Cooling	W	78,400	84,000	89,600	95,200
		kcal/h	67,400	72,200	77,100	81,900
		Btu/h	267,500	286,600	305,700	324,800
	Heating	W	-	-	-	-
		kcal/h	-	-	-	-
		Btu/h	-	-	-	-
Input	Cooling	kW	24.8	26.7	29.6	31.7
	Heating	kW	-	-	-	-
Casing Color	_ · · · · · · · · · · · · · · · · · · ·		WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	(77.87+110)+(110+110)x2	(77.87+110)+(110+110)x2	(77.87+110)+(110+110)x2	(77.87+110)+(110+110)x2
	Number of Revolution	r.p.m	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900))
	Motor Output x Number	W	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)>
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, (2325 ± 10)x5	2325 ± 10, (2325 ± 10)x5	2325 ± 10, (2325 ± 10)x5	2325 ± 10, (2325 ± 10)x5
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x4	291x2+271x4	291x2+271x4	291x2+271x4
	Air Flow Rate(High)	cmm	90x6	90x6	90x6	90x6
		cfm	3177x6	3177x6	3177x6	3177x6
	Drive	-	Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Top
Pipe Connctions	Liquid Pipes	mm(inch)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)
	Gas Pipes	mm(inch)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)
Dimensions (W*H*		mm	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x
	-,	inch	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x
Net Weight		kg	300x3	300x3	300x3	300x3
Net Weight		lbs	661.4x3	661.4x3	661.4x3	661.4x3
Power Supply Cab	nle	mm²	CV 38X5C	CV 38X5C	CV 38X5C	CV 38X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2
Refigerant	Refigerant name	111111	R22	R22	R22	R22
Tongorant	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply	00.11.01	Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### Conversion Formula

	HP		36	38	40	
Model Name		Combination Unit	LRUV3608TR0	LRUV3808TR0	LRUV4008TR0	
		Independent Unit	LRUV1208TR0	LRUV1408TR0	LRUV1608TR0	
			LRUC1208TR0	LRUC1208TR0	LRUC1208TR0	
			LRUC1208TR0	LRUC1208TR0	LRUC1208TR0	
Capacity	Cooling	W	100,800	106,400	112,000	
, ,		kcal/h	86,700	91,500	96,300	
		Btu/h	343,900	363,100	382,200	
	Heating	W	-	-	-	
		kcal/h	-	-	-	
		Btu/h	-	-	-	
Input	Cooling	kW	35.4	37.5	39.5	
·	Heating	kW	-	-	-	
Casing Color	1 0		WARM GRAY	WARM GRAY	WARM GRAY	
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	
Compressor	Туре		Scroll	Scroll	Scroll	
•	Maker		LG	LG	LG	
	Piston Displacement	cm²/rev	(77.87+110)+(110+110)x2	(77.87+110)+(110+110)x2	(77.87+110)+(110+110)x2	
	Number of Revolution	r.p.m	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900)x2	
	Motor Output x Number	W	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)x2	
	Starting Method		Direct on Line	Direct on Line	Direct on Line	
	Oil Type			SUNISO 4GSI	SUNISO 4GSI	
	Oil Charge	CC	2325 ± 10, (2325 ± 10)x5	2325 ± 10, (2325 ± 10)x5	2325 ± 10, (2325 ± 10)x5	
Fan	Type		Propeller Fan	Propeller Fan	Propeller Fan	
	Motor Output x Number	W	291x2+271x4	291x2+271x4	291x2+271x4	
	Air Flow Rate(High)	cmm	90x6	90x6	90x6	
		cfm	3177x6	3177x6	3177x6	
	Drive		Inverter	Inverter	Inverter	
	Discharge	Side / Top	Тор	Тор	Тор	
Pipe Connctions	Liquid Pipes	mm(inch)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)	
	Gas Pipes	mm(inch)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	
Dimensions (W*H	*D)	mm	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3	
		inch	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3	
Net Weight		kg	300x3	300x3	300x3	
		lbs	661.4x3	661.4x3	661.4x3	
Power Supply Cal	ble	mm²	CV 38X5C	CV 38X5C	CV 38X5C	
Transmission Cab	ole	mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	
Refigerant	Refigerant name		R22	R22	R22	
	Control		L.E.V	L.E.V	L.E.V	
Power Supply	<u> </u>	Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### Conversion Formula

# 1.1.2 Heat Pump

#### 380V, Heat Pump(50Hz)

	HP		5	6	8	10
Model Name		Combination Unit	LRUN508T0	LRUN608T0	LRUN808T0	LRUN1008T0
			LRUN508T0	LRUN608T0	LRUN808T0	LRUN1008T0
		Independent Unit				
Capacity	Cooling	W	14,000	16,000	22,400	28,000
Oupdoity	Occining	kcal/h	12,000	13,800	19,300	24,100
		Btu/h	47,800	54,600	76,400	95,500
	Heating	W W	15,800	18,000	25,200	31,500
	Tieating	kcal/h	13,600	15,500	21,700	27,100
		Btu/h	53,900	61,400	86,000	107,500
Input	Cooling	kW	4.6	5.7	7	8.9
iriput	Heating	kW	5.1	6.1	6.8	8.6
Casing Color	пеаші	KVV	WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Casing Color			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Heat Exchanger	T		Scroll	Scroll	Scroll	Scroll
Compressor	Туре		LG	LG	LG	LG
	Maker	21	77.87	77.87	77.87+110	77.87+110
	Piston Displacement	cm²/rev				
	Number of Revolution	r.p.m	3472	3472	3472, 2900	3472, 2900
	Motor Output x Number	W	4309x1	4309x1	4309+4900	4309+4900
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10	2325 ± 10		2325 ± 10, 2325 ± 10
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x1	291x1	291x2	291x2
	Air Flow Rate(High)	cmm	90	90	90x2	90x2
		cfm	3177	3177	3177x2	3177x2
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Top	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)
	Gas Pipes	mm(inch)	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)
Dimensions (W*H	*D)	mm	806 * 1555 * 730	806 * 1555 * 730	1280 * 1555 * 730	1280 * 1555 * 730
		inch	31.7 * 61.2 * 28.7	31.7 * 61.2 * 28.7	50.4 * 61.2 * 28.7	50.4 * 61.2 * 28.7
Net Weight		kg	150	150	300	300
-		lbs	330.7	330.7	661.4	661.4
Power Supply Cal	ble	mm²	CV 5.5X5C	CV 5.5X5C	CV 8X5C	CV 8X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name	1	R22	R22	R22	R22
<b>5</b>	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply	1	Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50

#### Notes:

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### Conversion Formula

Kcal/h= kW x 860 Btu/h = kW x 3412 cfm =  $m^3$ /min x 35.3

HP		12	14	16	18	
Model Name		Combination Unit	LRUN1208T0	LRUN1408T0	LRUN1608TS0	LRUN1808TS0
		Independent Unit	LRUN1208T0	LRUN1408T0	LRUN808TS0	LRUN1008TS0
					LRUH808TS0	LRUH808TS0
Capacity	Cooling	W	33,600	39,200	44,800	50,400
		kcal/h	28,900	33,700	38,500	43,300
		Btu/h	114,700	133,800	152,900	172,000
	Heating	W	37,800	44,100	50,400	56,700
		kcal/h	32,500	37,900	43,300	48,800
		Btu/h	129,000	150,500	172,000	193,500
Input	Cooling	kW	11.8	13.9	14	15.9
·	Heating	kW	11	13	13.6	15.4
Casing Color		-	WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll	Scroll
	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110	77.87+110	77.87+110x3	77.87+110x3
	Number of Revolution	r.p.m	3472, 2900	3472, 2900	(3472, 2900)+(2900, 2900)	(3472, 2900)+(2900, 2900)
	Motor Output x Number	W	4309+4900	4309+4900	(4309+4900)+(4900+4900)	(4309+4900)+(4900+4900)
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, 2325 ± 10	2325 ± 10, 2325 ± 10	2325 ± 10, (2325 ± 10)x3	2325 ± 10, (2325 ± 10)x3
Fan	Type		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2	291x2	291x2+271x2	291x2+271x2
	Air Flow Rate(High)	cmm	90x2	90x2	90x4	90x4
		cfm	3177x2	3177x2	3177x4	3177x4
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø19.05(3/4)	Ø19.05(3/4)
	Gas Pipes	mm(inch)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø38.1(1 1/2)	Ø38.1(1 1/2)
Dimensions (W*H	*D)	mm	1280 * 1555 * 730	1280 * 1555 * 730	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x2
•	•	inch	50.4 * 61.2 * 28.7	50.4 * 61.2 * 28.7	(50.4 * 61.2 * 28.7)x2	(50.4 * 61.2 * 28.7)x2
Net Weight		kg	300	300	300x2	300x2
lbs			661.4	661.4	661.4x2	661.4x2
Power Supply Cab	ole	mm²	CV 8X5C	CV 8X5C	CV 14X5C	CV 14X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name	-	R22	R22	R22	R22
Ü	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply		Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50

#### **Notes**

- 1. Capacities are based on the following conditions:
- Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
  - \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
  - \* Interconnecting Piping Length 7.5m
  - \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

## Conversion Formula

Kcal/h= kW x 860 Btu/h = kW x 3412 cfm = m³/min x 35.3

	HP		20	22	24	26
Model Name		Combination Unit	LRUN2008TS0	LRUN2208TS0	LRUN2408TS0	LRUN2608TR0
			LRUN1008TS0	LRUN1208TS0	LRUN1208TS0	LRUN1008TR0
		Independent Unit	LRUH1008TS0	LRUH1008TS0	LRUH1208TS0	LRUH808TR0
						LRUH808TR0
Capacity	Cooling	W	56,000	61,600	67,200	72,800
, ,		kcal/h	48,200	53,000	57,800	62,600
		Btu/h	191,100	210,200	229,300	248,400
	Heating	W	63,000	69,300	75,600	81,900
		kcal/h	54,200	59,600	65,000	70,400
		Btu/h	225,000	236,500	258,000	279,500
Input	Cooling	kW	17.8	20.7	23.6	22.9
1	Heating	kW	17.2	19.6	22	22.2
Casing Color	J J	ļ	WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll	Scroll
•	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110x3	77.87+110x3	77.87+110x3	77.87+110x5
	Number of Revolution	r.p.m	(3472, 2900)+(2900, 2900)	(3472, 2900)+(2900, 2900)	(3472, 2900)+(2900, 2900)	(3472, 2900)+(2900, 2900)x2
	Motor Output x Number	W	(4309+4900)+(4900+4900)	(4309+4900)+(4900+4900)	(4309+4900)+(4900+4900)	(4309+4900)+(4900+4900)x2
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, (2325 ± 10)x3	2325 ± 10, (2325 ± 10)x3	2325 ± 10, (2325 ± 10)x3	2325 ± 10, (2325 ± 10)x5
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x2	291x2+271x2	291x2+271x2	291x2+271x4
	Air Flow Rate(High)	cmm	90x4	90x4	90x4	90x6
		cfm	3177x4	3177x4	3177x4	3177x6
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø22.2(7/8)
	Gas Pipes	mm(inch)	Ø38.1(1 1/2)	Ø38.1(1 1/2)	Ø38.1(1 1/2)	Ø44.5(1 3/4)
Dimensions (W*H	*D)	mm	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x3
•	•	inch	(50.4 * 61.2 * 28.7)x2	(50.4 * 61.2 * 28.7)x2	(50.4 * 61.2 * 28.7)x2	(50.4 * 61.2 * 28.7)x3
Net Weight		kg	300x2	300x2	300x2	300x3
lbs		661.4x2	661.4x2	661.4x2	661.4x3	
Power Supply Cal	Power Supply Cable mm²		CV 14X5C	CV 14X5C	CV 14X5C	CV 14X5C
Transmission Cable mm <sup>2</sup>		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name	•	R22	R22	R22	R22
ū	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply	1	Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50

#### Notes:

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

HP		28	30	32	34	
Model Name		Combination Unit	LRUN2808TR0	LRUN3008TR0	LRUN3208TR0	LRUN3408TR0
			LRUN808TR0	LRUN1008TR0	LRUN1208TR0	LRUN1408TR0
		·	LRUH1008TR0	LRUH1008TR0	LRUH1008TR0	LRUH1008TR0
			LRUH1008TR0	LRUH1008TR0	LRUH1008TR0	LRUH1008TR0
Capacity	Cooling	W	78,400	84,000	89,600	95,200
		kcal/h	67,400	72,200	77,100	81,900
		Btu/h	267,500	286,600	305,700	324,800
	Heating	W	88,200	94,500	100,800	107,100
		kcal/h	75,900	81,300	86,700	92,100
		Btu/h	301,000	322,500	343,900	365,400
Input	Cooling	kW	24.8	26.7	29.6	31.7
·	Heating	kW	24	25.8	28.2	30.2
Casing Color			WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll	Scroll
·	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110x5	77.87+110x5	77.87+110x5	77.87+110x5
	Number of Revolution	r.p.m	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900)x2
	Motor Output x Number	W	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)x2
	Starting Method	-	Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, (2325 ± 10)x5			
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x4	291x2+271x4	291x2+271x4	291x2+271x4
	Air Flow Rate(High)	cmm	90x6	90x6	90x6	90x6
		cfm	3177x6	3177x6	3177x6	3177x6
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)
	Gas Pipes	mm(inch)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)
Dimensions (W*H	*D)	mm	(1280 * 1555 * 730)x3			
		inch	(50.4 * 61.2 * 28.7)x3			
Net Weight		kg	300x3	300x3	300x3	300x3
lbs		lbs	661.4x3	661.4x3	661.4x3	661.4x3
Power Supply Cab	Power Supply Cable mm <sup>2</sup>		CV 38X5C	CV 38X5C	CV 38X5C	CV 38X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C		
Refigerant	Refigerant name		R22	R22	R22	R22
	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply	<u> </u>	Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### Conversion Formula

Kcal/h= kW x 860  $Btu/h = kW \times 3412$ 

 $cfm = m^3/min \times 35.3$ 

	HP		36	38	40
Model Name		Combination Unit	LRUN3608TR0	LRUN3808TR0	LRUN4008TR0
		Independent Unit	LRUN1208TR0	LRUN1408TR0	LRUN1608TR0
		'	LRUH1208TR0	LRUH1208TR0	LRUH1208TR0
			LRUH1208TR0	LRUH1208TR0	LRUH1208TR0
Capacity	Cooling	W	100,800	106,400	112,000
1 7		kcal/h	86,700	91,500	96,300
		Btu/h	343,900	363,100	382,200
	Heating	W	113,400	119,700	126,000
		kcal/h	97,500	102,900	108,400
		Btu/h	386,900	408,400	429,900
Input	Cooling	kW	35.4	37.5	39.5
•	Heating	kW	33	35	36.8
Casing Color	j J	ļ	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll
•	Maker		LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110x5	77.87+110x5	77.87+110x5
	Number of Revolution	r.p.m	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900)x2	(3472, 2900)+(2900, 2900)x2
	Motor Output x Number	W	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)x2	(4309+4900)+(4900+4900)x2
	Starting Method		Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, (2325 ± 10)x5	$325 \pm 10$ , $(2325 \pm 10)x5$ $2325 \pm 10$ , $(2325 \pm 10)x5$	
Fan	Type		Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number W		291x2+271x4	291x2+271x4	291x2+271x4
	Air Flow Rate(High)	cmm	90x6	90x6	90x6
		cfm	3177x6	3177x6	3177x6
	Drive		Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)
	Gas Pipes	mm(inch)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)
Dimensions (W*H	*D)	mm	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3
		inch	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3
Net Weight		kg	300x3	300x3	300x3
		lbs	661.4x3	661.4x3	661.4x3
Power Supply Cal	ole	mm²	CV 38X5C	CV 38X5C	CV 38X5C
Transmission Cab	ole	mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name		R22	R22	R22
-	Control		L.E.V	L.E.V	L.E.V
Power Supply		Ø / V / Hz	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50	3 / 380 ~ 415 / 50

#### Notes:

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

# 1.2 60Hz

# 1.2.1 Cooling Only

### 380V, Cooling Only(60Hz)

	HP		5	6	8	10
Model Name		Combination Unit	LRUV509T0	LRUV609T0	LRUV809T0	LRUV1009T0
			LRUV509T0	LRUV609T0	LRUV809T0	LRUV1009T0
		Independent Unit				
Capacity	Cooling	W	14,000	16,000	22,400	28,000
o apaon,		kcal/h	12,000	13,800	19,300	24,100
		Btu/h	47,800	54,600	76,400	95,500
	Heating	W	-	-	-	-
		kcal/h	-	-	-	-
		Btu/h	_	_	_	_
Input	Cooling	kW	4.6	5.7	7.1	8.9
mpat	Heating	kW	-	-		-
Casing Color	rioding	KVV	WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll	Scroll
Compressor	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87	77.87	77.87	77.87+110
	Number of Revolution	r.p.m	3472	3472	3472	3472, 3500
	Motor Output x Number	W	4309x1	4309x1	4309x1	4309+5700
	Starting Method	***	Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ±10	2325 ±10	2325 ±10	2325 ±10, 2325 ±10
Fan	Type		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x1	291x1	291x1	291x2
	Air Flow Rate(High)	cmm	90	90	90	90x2
		cfm	3177	3177	3177x2	3177x2
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)
i po comiodono	Gas Pipes	mm(inch)	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)
Dimensions (W*H		mm	806 * 1555 * 730	806 * 1555 * 730	806 * 1555 * 730	1280 * 1555 * 730
	-,	inch	31.7 * 61.2 * 28.7	31.7 * 61.2 * 28.7	31.7 * 61.2 * 28.7	50.4 * 61.2 * 28.7
Net Weight		kg	150	150	150	300
		lbs	330.7	330.7	330.7	661.4
Power Supply Cab	ole	mm²	CV 5.5X5C	CV 5.5X5C	CV 5.5X5C	CV 8X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C		
Refigerant	Refigerant name	1	R22	R22	R22	R22
,g	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply	1	Ø / V / Hz	3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- \* Interconnecting Piping Length 7.5m \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

**Conversion Formula** 

	HP		12	14	16	18
Model Name		Combination Unit	LRUV1209T0	LRUV1409T0	LRUV1609TS0	LRUV1809TS0
			LRUV1209T0	LRUV1409T0	LRUV809TS0	LRUV1009TS0
		'			LRUC809TS0	LRUC809TS0
Capacity	Cooling	W	33,600	39,200	44,800	50,400
. ,		kcal/h	28,900	33,700	38,500	43,300
		Btu/h	114,700	133,800	152,900	172,000
	Heating	W	-	-	-	-
		kcal/h	-	-	-	-
		Btu/h	-	-	-	-
Input	Cooling	kW	11.8	13.9	14	15.9
	Heating	kW	-	-	-	-
Casing Color	1 · · · · · · · · · · · · · · ·		WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110	77.87+110	77.87+110x3	77.87+110x3
	Number of Revolution	r.p.m	3472, 3500	3472, 3500	(3472, 3500)+(3500, 3500)	(3472, 3500)+(3500, 3500)
	Motor Output x Number	W	4309+5700	4309+5700	(4309+5700)+(5700+5700)	(4309+5700)+(5700+5700)
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ±10, 2325 ±10	2325 ±10, 2325 ±10	2325 ±10, (2325 ±10)x3	2325 ±10, (2325 ±10)x3
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2	291x2	291x2+271x2	291x2+271x2
	Air Flow Rate(High)	cmm	90x2	90x2	90x4	90x4
	, ,	cfm	3177x2	3177x4	3177x4	3177x4
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Top
Pipe Connctions	Liquid Pipes	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø19.05(3/4)	Ø19.05(3/4)
•	Gas Pipes	mm(inch)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø38.1(1 1/2)	Ø38.1(1 1/2)
Dimensions (W*H		mm	1280 * 1555 * 730	1280 * 1555 * 730	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x2
,	,	inch	50.4 * 61.2 * 28.7	50.4 * 61.2 * 28.7	(50.4 * 61.2 * 28.7)x2	
Net Weight		kg	300	300	300x2	300x2
J		lbs	661.4	661.4	661.4x2	661.4x2
Power Supply Cab	ole	mm²	CV 8X5C	CV 8X5C	CV 14X5C	CV 14X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name	<u> </u>	R22	R22	R22	R22
<b>3</b>	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply		Ø / V / Hz	3, 380, 60	3, 380, 60	3, 380, 60	3, 380, 60

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

	HP		20	22	24	26
Model Name		Combination Unit	LRUV2009TS0	LRUV2209TS0	LRUV2409TS0	LRUV2609TS0
		Independent Unit	LRUV1009TS0	LRUV1209TS0	LRUV1209TS0	LRUV1409TS0
		'	LRUC1009TS0	LRUC1009TS0	LRUC1209TS0	LRUC1209TS0
Capacity	Cooling	W	56,000	61,600	67,200	72,800
		kcal/h	48,200	53,000	57,800	62,600
		Btu/h	191,100	210,200	229,300	248,400
	Heating	W	-	-	-	-
		kcal/h	-	-	-	-
		Btu/h	-	-	-	-
Input	Cooling	kW	17.8	20.7	23.6	25.7
	Heating	kW	-	-	-	-
Casing Color	1		WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll	Scroll
C C	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110x3	77.87+110x3	77.87+110x3	77.87+110x3
	Number of Revolution	r.p.m	(3472, 3500)+(3500, 3500)	(3472, 3500)+(3500, 3500)	(3472, 3500)+(3500, 3500)	(3472, 3500)+(3500, 3500)
	Motor Output x Number	W	(4309+5700)+(5700+5700)	(4309+5700)+(5700+5700)	(4309+5700)+(5700+5700)	1 , , , ,
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC		2325 ±10, (2325 ±10)x3		
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x2	291x2+271x2	291x2+271x2	291x2+271x2
	Air Flow Rate(High)	cmm	90x4	90x4	90x4	90x4
	7 iii 1 ion 1 tato(i iigii)	cfm	3177x4	3177x4	3177x4	3177x4
	Drive	- Cilli	Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø22.2(7/8)
po ooooo	Gas Pipes	mm(inch)	Ø38.1(1 1/2)	Ø38.1(1 1/2)	Ø38.1(1 1/2)	Ø44.5(1 3/4)
Dimensions (W*H		mm	(1280 * 1555 * 730)x2			
2	-/	inch		(50.4 * 61.2 * 28.7)x2		
Net Weight		kg	300x2	300x2	300x2	300x2
		lbs	661.4x2	661.4x2	661.4x2	661.4x2
Power Supply Cable mm <sup>2</sup>		CV 14X5C	CV 14X5C	CV 14X5C	CV 14X5C	
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	
Refigerant	Refigerant name		R22	R22	R22	R22
	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply	CONTROL	Ø / V / Hz	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60
. Owen Ouppiy		DIVIIL	1 07 000 7 00	1 07 000 7 00	0 / 000 / 00	0 / 000 / 00

#### Notes:

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

# Conversion Formula

	HP		28	30	32	34
Model Name		Combination Unit	LRUV2809TR0	LRUV3009TR0	LRUV3209TR0	LRUV3409TR0
		Independent Unit	LRUV809TR0	LRUV1009TR0	LRUV1209TR0	LRUV1409TR0
			LRUC1009TR0	LRUC1009TR0	LRUC1009TR0	LRUC1009TR0
			LRUC1009TR0	LRUC1009TR0	LRUC1009TR0	LRUC1009TR0
Capacity	Cooling	W	78,400	84,000	89,600	95,200
. ,		kcal/h	67,400	72,200	77,100	81,900
		Btu/h	267,500	286,600	305,700	324,800
	Heating	W	-	-	-	-
		kcal/h	-	-	-	-
		Btu/h	-	-	-	-
Input	Cooling	kW	24.8	26.7	29.6	31.7
1 **	Heating	kW	-	-	-	-
Casing Color	1 0		WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll	Scroll
	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110x5	77.87+110x5	77.87+110x5	77.87+110x5
	Number of Revolution	r.p.m	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2
	Motor Output x Number	W	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ±10, (2325 ±10)x5			
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x4	291x2+271x4	291x2+271x4	291x2+271x4
	Air Flow Rate(High)	cmm	90x6	90x6	90x6	90x6
	· ··· · · · · · · · · · · · · · · · ·	cfm	3177x6	3177x6	3177x6	3177x6
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)
1	Gas Pipes	mm(inch)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)
Dimensions (W*H*		mm	(1280 * 1555 * 730)x3			
	,	inch	(50.4 * 61.2 * 28.7)x3			
Net Weight		kg	300x3	300x3	300x3	300x3
- <b>3</b>		lbs	661.4x3	661.4x3	661.4x3	661.4x3
Power Supply Cable mm <sup>2</sup>		CV 38X5C	CV 38X5C	CV 38X5C	CV 38X5C	
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name	1	R22	R22	R22	R22
	Control		L.E.V	L.E.V	L.E.V	L.E.V
				3 / 380 / 60	3 / 380 / 60	3 / 380 / 60

#### Notes:

- 1. Capacities are based on the following conditions:
  - Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

    - \* Interconnecting Piping Length 7.5m
    - \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

	HP		36	38	40
Model Name	Model Name		LRUV3609TR0	LRUV3809TR0	LRUV4009TR0
		Independent Unit	LRUV1209TR0	LRUV1409TR0	LRUV1609TR0
			LRUC1209TR0	LRUC1209TR0	LRUC1209TR0
			LRUC1209TR0	LRUC1209TR0	LRUC1209TR0
Capacity	Cooling	W	100,800	106,400	112,000
, ,		kcal/h	86,700	91,500	96,300
		Btu/h	343,900	363,100	382,200
	Heating	W	-	-	-
		kcal/h	-	-	-
		Btu/h	-	-	-
Input	Cooling	kW	35.4	37.5	39.5
•	Heating	kW	-	-	-
Casing Color			WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll
•	Maker		LG	LG	LG
	Piston Displacement	cm²/rev	cm²/rev 77.87+110x5		77.87+110x5
	Number of Revolution	r.p.m	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2
	Motor Output x Number	W	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2
	Starting Method		Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ±10, (2325 ±10)x5	2325 ±10, (2325 ±10)x5	2325 ±10, (2325 ±10)x5
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x4	291x2+271x4	291x2+271x4
	Air Flow Rate(High)	cmm	90x6	90x6	90x6
		cfm	3177x6	3177x6	3177x6
	Drive		Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)
	Gas Pipes	mm(inch)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)
Dimensions (W*H	*D)	mm	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3
		inch	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3
Net Weight		kg	300x3	300x3	300x3
		lbs	661.4x3	661.4x3	661.4x3
Power Supply Cal	ole	mm²	CV 38X5C	CV 38X5C	CV 38X5C
Transmission Cab	••	mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name		R22	R22	R22
	Control		L.E.V	L.E.V	L.E.V
Power Supply	<u> </u>	Ø / V / Hz	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### Conversion Formula

	HP		8	10	12
		Combination Unit	LRUV80BT0	LRUV100BT0	LRUV120BT0
Model Name			LRUV80BT0	LRUV100BT0	LRUV120BT0
		Independent Unit			
		·			
	Cooling	W	22,400	28,000	33,600
		kcal/h	19,300	24,100	28,900
Capacity		Btu/h	76,400	95,500	114,700
	Heating	W	-	-	-
		kcal/h	-	-	-
		Btu/h	-	-	-
Input	Cooling	kW	7.7	9.8	11.8
	Heating	kW	-	-	-
Casing Color			WARM GRAY	WARM GRAY	WARM GRAY
Compressor	Туре		Scroll	Scroll	Scroll
	Maker		LG	LG	LG
	Piston Displacement	cm³/rev	53.5+110	53.5+110	53.5+110
	Number of Revolution	r.p.m	3460, 3500	3460, 3500	3460, 3500
	Motor OutputxNumber	kW	3120+6100	3120+6100	3120+6100
	Starting Method		Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	1950 ± 10, 2325 ± 10	1950 ± 10, 2325 ± 10	1950 ± 10, 2325 ± 10
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan
	Motor OutputxNumber	W	291x2	291x2	291x2
	Air Flow Rate(High)	cmm	90x2	90x2	90x2
		cfm	3177x2	3177x2	3177x2
	Drive		Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
	Gas Pipes	mm(inch)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)
Dimensions (W*H	*D)	mm(inch)	1280 * 1555 * 730(50.4 * 61.2 * 28.7)	1280 * 1555 * 730 (50.4 * 61.2 * 28.7)	1280 * 1555 * 730(50.4 * 61.2 * 28.7)
Net Weight		kg(lbs)	300(661.4)	300(661.4)	300(661.4)
Power Supply Cab		mm²	CV 22X5C	CV 22X5C	CV 22X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name		R22	R22	R22
	Control		L.E.V	L.E.V	L.E.V
Power Supply		Ø / V / Hz	3, 220, 60	3, 220, 60	3, 220, 60

#### Notes:

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

## 1.2.2 Heat Pump

#### 380V, Heat Pump(60Hz)

	HP		5	6	8	10
Model Name		Combination Unit	LRUN509T0	LRUN609T0	LRUN809T0	LRUN1009T0
		Independent Unit	LRUN509T0	LRUN609T0	LRUN809T0	LRUN1009T0
		'				
Capacity	Cooling	W	14,000	16,000	22,400	28,000
		kcal/h	12,000	13,800	19,300	24,100
		Btu/h	47,800	54,600	76,400	95,500
	Heating	W	15,800	18,000	25,200	31,500
		kcal/h	13,600	15,500	21,700	27,100
		Btu/h	53,900	61,400	86,000	107,500
Input	Cooling	kW	4.6	5.7	7	8.9
•	Heating	kW	5.1	6.1	6.8	8.6
Casing Color		-	WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Type		Scroll	Scroll	Scroll	Scroll
·	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87	77.87	77.87+110	77.87+110
	Number of Revolution	r.p.m	3472	3472	3472, 3500	3472, 3500
	Motor Output x Number	W	4309x1	4309x1	4309+5700	4309+5700
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10	2325 ± 10	2325 ± 10, 2325 ± 10	2325 ± 10, 2325 ± 10
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x1	291x1	291x2	291x2
	Air Flow Rate(High)	cmm	90	90	90x2	90x2
		cfm	3177	3177	3177x2	3177x2
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø9.52(3/8)	Ø9.52(3/8)	Ø12.7(1/2)	Ø12.7(1/2)
•	Gas Pipes	mm(inch)	Ø19.05(3/4)	Ø22.2(7/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)
Dimensions (W*H	*D)	mm	806 * 1555 * 730	806 * 1555 * 730	1280 * 1555 * 730	1280 * 1555 * 730
`	•	inch	31.7 * 61.2 * 28.7	31.7 * 61.2 * 28.7	50.4 * 61.2 * 28.7	50.4 * 61.2 * 28.7
Net Weight		kg	150	150	300	300
		lbs	330.7	330.7	661.4	661.4
Power Supply Cable mm <sup>2</sup>		mm²	CV 5.5X5C	CV 5.5X5C	CV 8X5C	CV 8X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name		R22	R22	R22	R22
ŭ	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply	•	Ø / V / Hz	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60

#### Notes:

- 1. Capacities are based on the following conditions:
  - Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

    - \* Interconnecting Piping Length 7.5m
    - \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

# **Conversion Formula**

	HP		12	14	16	18
Model Name		Combination Unit	LRUN1209T0	LRUN1409T0	LRUN1609TS0	LRUN1809TS0
		Independent Unit	LRUN1209T0	LRUN1409T0	LRUN809TS0	LRUN1009TS0
					LRUH809TS0	LRUH809TS0
Capacity	Cooling	W	33,600	39,200	44,800	50,400
. ,		kcal/h	28,900	33,700	38,500	43,300
		Btu/h	114,700	133,800	152,900	172,000
	Heating	W	37,800	44,100	50,400	56,700
		kcal/h	32,500	37,900	43,300	48,800
		Btu/h	129,000	150,500	172,000	193,500
Input	Cooling	kW	11.8	13.9	14	15.9
•	Heating	kW	11	13	13.6	15.4
Casing Color			WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Type		Scroll	Scroll	Scroll	Scroll
•	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110	77.87+110	77.87+110x3	77.87+110x3
	Number of Revolution	r.p.m	3472, 3500	3472, 3500	(3472, 3500)+(3500, 3500)	(3472, 3500)+(3500, 3500)
	Motor Output x Number	W	4309+5700	4309+5700	(4309+5700)+(5700+5700)	(4309+5700)+(5700+5700)
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, 2325 ± 10	2325 ± 10, 2325 ± 10	2325 ± 10, (2325 ± 10)x3	2325 ± 10, (2325 ± 10)x3
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	750+750	291x2+271x2	291x2+271x2	291x2+271x2
	Air Flow Rate(High)	cmm	90x2	90x2	90x4	90x4
		cfm	3177x2	3177x2	3177x4	3177x4
	Drive		Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø19.05(3/4)	Ø19.05(3/4)
•	Gas Pipes	mm(inch)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø38.1(1 1/2)	Ø38.1(1 1/2)
Dimensions (W*H	*D)	mm	1280 * 1555 * 730	1280 * 1555 * 730	(1280 * 1555 * 730)x2	(1280 * 1555 * 730)x2
•		inch	50.4 * 61.2 * 28.7	50.4 * 61.2 * 28.7	(50.4 * 61.2 * 28.7)x2	(50.4 * 61.2 * 28.7)x2
Net Weight		kg	300	300	300x2	300x2
		lbs	661.4	661.4	661.4x2	661.4x2
Power Supply Cable mm <sup>2</sup>		mm²	CV 8X5C	CV 8X5C	CV 14X5C	CV 14X5C
Transmission Cab	ole	mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name		R22	R22	R22	R22
	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply		Ø / V / Hz	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60

#### Notes:

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

Conversion Formula

Kcal/h= kW x 860 Btu/h = kW x 3412 cfm =  $m^3$ /min x 35.3

	HP		20	22	24	26
Model Name		Combination Unit	LRUN2009TS0	LRUN2209TS0	LRUN2409TS0	LRUN2609TS0
		Independent Unit	LRUN1009TS0	LRUN1209TS0	LRUN1209TS0	LRUN1409TS0
		'	LRUH1009TS0	LRUH1009TS0	LRUH1209TS0	LRUH1209TS0
Capacity	Cooling	W	56,000	61,600	67,200	72,800
		kcal/h	48,200	53,000	57,800	62,600
		Btu/h	191,100	210,200	229,300	248,400
	Heating	W	63,000	69,300	75,600	81,900
		kcal/h	54,200	59,600	65,000	70,400
		Btu/h	225,000	236,500	258,000	279,500
Input	Cooling	kW	17.8	20.7	23.6	25.7
	Heating	kW	17.2	19.6	22	24
Casing Color		-	WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110x3	77.87+110x3	77.87+110x3	77.87+110x3
	Number of Revolution	r.p.m	(3472, 3500)+(3500, 3500)	(3472, 3500)+(3500, 3500)	(3472, 3500)+(3500, 3500)	(3472, 3500)+(3500, 3500)
	Motor Output x Number	W	(4309+5700)+(5700+5700)	(4309+5700)+(5700+5700)	(4309+5700)+(5700+5700)	(4309+5700)+(5700+5700)
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, (2325 ± 10)x3			
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x2	291x2+271x2	291x2+271x2	291x2+271x4
	Air Flow Rate(High)	cmm	90x4	90x4	90x4	90x4
		cfm	3177x4	3177x4	3177x4	3177x4
	Drive	•	Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)	Ø19.05(3/4)
	Gas Pipes	mm(inch)	Ø38.1(1 1/2)	Ø38.1(1 1/2)	Ø38.1(1 1/2)	Ø38.1(1 1/2)
Dimensions (W*H	*D)	mm	(1280 * 1555 * 730)x2			
·	•	inch	(50.4 * 61.2 * 28.7)x2			
Net Weight		kg	300x2	300x2	300x2	300x2
·		lbs	661.4x2	661.4x2	661.4x2	661.4x2
Power Supply Cable		mm²	CV 14X5C	CV 14X5C	CV 14X5C	CV 14X5C
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name	·	R22	R22	R22	R22
ŭ	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply	1	Ø / V / Hz	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60

- 1. Capacities are based on the following conditions:
  - Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

    - \* Interconnecting Piping Length 7.5m
    - \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB

- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

### Conversion Formula

	HP		28	30	32	34
Model Name		Combination Unit	LRUN2809TR0	LRUN3009TR0	LRUN3209TR0	LRUN3409TR0
Inc		Independent Unit	LRUN809TR0	LRUN1009TR0	LRUN1209TR0	LRUN1409TR0
		'	LRUH1009TR0	LRUH1009TR0	LRUH1009TR0	LRUH1009TR0
			LRUH1009TR0	LRUH1009TR0	LRUH1009TR0	LRUH1009TR0
Capacity	Cooling	W	78,400	84,000	89,600	95,200
. ,		kcal/h	67,400	72,200	77,100	81,900
		Btu/h	267,500	286,600	305,700	324,800
	Heating	W	88,200	94,500	100,800	107,100
		kcal/h	75,900	81,300	86,700	92,100
		Btu/h	301,000	322,500	343,900	365,400
Input	Cooling	kW	24.8	26.7	29.6	31.7
r	Heating	kW	24	25.8	28.2	30.2
Casing Color	J J	ļ	WARM GRAY	WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll	Scroll
·	Maker		LG	LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110x5	77.87+110x5	77.87+110x5	77.87+110x5
	Number of Revolution	r.p.m	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2
	Motor Output x Number	W	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2
	Starting Method		Direct on Line	Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, (2325 ± 10)x5			
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x4	291x2+271x4	291x2+271x4	291x2+271x4
	Air Flow Rate(High)	cmm	90x6	90x6	90x6	90x6
		cfm	3177x6	3177x6	3177x6	3177x6
	Drive	'	Inverter	Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)
•	Gas Pipes	mm(inch)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)
Dimensions (W*H	*D)	mm	(1280 * 1555 * 730)x3			
	•	inch	(50.4 * 61.2 * 28.7)x3			
Net Weight kg lbs		kg	300x3	300x3	300x3	300x3
			661.4x3	661.4x3	661.4x3	661.4x3
Power Supply Cable mm²		CV 38X5C	CV 38X5C	CV 38X5C	CV 38X5C	
Transmission Cab		mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name	•	R22	R22	R22	R22
ū	Control		L.E.V	L.E.V	L.E.V	L.E.V
Power Supply		Ø / V / Hz	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60

#### **Notes**

- 1. Capacities are based on the following conditions:
  - Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB
    - \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
    - \* Interconnecting Piping Length 7.5m
    - \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

Kcal/h= kW x 860 Btu/h = kW x 3412 cfm =  $m^3$ /min x 35.3

	HP		36	38	40
Model Name		Combination Unit	LRUN3609TR0	LRUN3809TR0	LRUN4009TR0
		Independent Unit	LRUN1209TR0	LRUN1409TR0	LRUN1609TR0
		'	LRUH1209TR0	LRUH1209TR0	LRUH1209TR0
			LRUH1209TR0	LRUH1209TR0	LRUH1209TR0
Capacity	Cooling	W	100,800	106,400	112,000
. ,		kcal/h	86,700	91,500	96,300
		Btu/h	343,900	363,100	382,200
	Heating	W	113,400	119,700	126,000
		kcal/h	97,500	102,900	108,400
		Btu/h	386,900	408,400	429,900
Input	Cooling	kW	35.4	37.5	39.5
	Heating	kW	33	35	36.8
Casing Color			WARM GRAY	WARM GRAY	WARM GRAY
Heat Exchanger			Louver Fin	Louver Fin	Louver Fin
Compressor	Туре		Scroll	Scroll	Scroll
·	Maker		LG	LG	LG
	Piston Displacement	cm²/rev	77.87+110x5	77.87+110x5	77.87+110x5
	Number of Revolution	r.p.m	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2	(3472, 3500)+(3500, 3500)x2
	Motor Output x Number	W	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2	(4309+5700)+(5700+5700)x2
	Starting Method		Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	2325 ± 10, (2325 ± 10)x5	2325 ± 10, (2325 ± 10)x5	2325 ± 10, (2325 ± 10)x5
Fan	Туре	·	Propeller Fan	Propeller Fan	Propeller Fan
	Motor Output x Number	W	291x2+271x4	291x2+271x4	291x2+271x4
	Air Flow Rate(High)	cmm	90x6	90x6	90x6
		cfm	3177x6	3177x6	3177x6
	Drive		Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø22.2(7/8)	Ø22.2(7/8)	Ø22.2(7/8)
	Gas Pipes	mm(inch)	Ø44.5(1 3/4)	Ø44.5(1 3/4)	Ø44.5(1 3/4)
Dimensions (W*H	*D)	mm	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3	(1280 * 1555 * 730)x3
		inch kg	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3	(50.4 * 61.2 * 28.7)x3
Net Weight	Net Weight		300x3	300x3	300x3
		lbs	661.4x3	661.4x3	661.4x3
Power Supply Cab		mm²	CV 38X5C	CV 38X5C	CV 38X5C
Transmission Cab	•••	mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name		R22	R22	R22
	Control		L.E.V	L.E.V	L.E.V
Power Supply		Ø / V / Hz	3 / 380 / 60	3 / 380 / 60	3 / 380 / 60

#### Notes:

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB

- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB

- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

	HP		8	10	12
		Combination Unit	LRUN80BT0	LRUN100BT0	LRUN120BT0
Model Name			LRUN80BT0	LRUN100BT0	LRUN120BT0
		Independent Unit			
	Cooling	W	22,400	28,000	33,600
	Cooming	kcal/h	19,300	24,100	28,900
Capacity		Btu/h	76,400	95,500	114,700
Capacity	Heating	W	25,200	31,500	37,800
	ricating	kcal/h	21,700	27,100	32,500
		Btu/h	86,000	107,500	129,000
Input	Cooling	kW	7.7	9.8	11.8
input	Heating	kW	7.5	9.6	11.5
Casing Color	пеашіў	KVV	WARM GRAY	WARM GRAY	WARM GRAY
Compressor	Tuno		Scroll	Scroll	
Compressor	Type		LG	LG	Scroll LG
	Maker Distant Displacement	om3/rov			
	Piston Displacement	cm³/rev	53.5+110	53.5+110	53.5+110
	Number of Revolution	r.p.m	3460, 3500	3460, 3500	3460, 3500
	Motor OutputxNumber	kW	3120+6100	3120+6100	3120+6100
	Starting Method		Direct on Line	Direct on Line	Direct on Line
	Oil Type		SUNISO 4GSI	SUNISO 4GSI	SUNISO 4GSI
	Oil Charge	CC	1950 ± 10, 2325 ± 10	1950 ± 10, 2325 ± 10	1950 ± 10, 2325 ± 10
Fan	Туре		Propeller Fan	Propeller Fan	Propeller Fan
	Motor OutputxNumber	W	291x2	291x2	291x2
	Air Flow Rate(High)	cmm	90x2	90x2	90x2
		cfm	3177x2	3177x2	3177x2
	Drive		Inverter	Inverter	Inverter
	Discharge	Side / Top	Тор	Тор	Тор
Pipe Connctions	Liquid Pipes	mm(inch)	Ø12.7(1/2)	Ø12.7(1/2)	Ø12.7(1/2)
	Gas Pipes	mm(inch)	Ø28.58(1 1/8)	Ø28.58(1 1/8)	Ø28.58(1 1/8)
Dimensions (W*H	*D)	mm(inch)	1280 * 1555 * 730(50.4 * 61.2 * 28.7)	1280 * 1555 * 730(50.4 * 61.2 * 28.7)	1280 * 1555 * 730(50.4 * 61.2 * 28.7)
Net Weight		kg(lbs)	300(661.4)	300(661.4)	300(661.4)
Power Supply Cab	ole	mm <sup>2</sup>	CV 22X5C	CV 22X5C	CV 22X5C
Transmission Cab	le	mm²	CVV-SB 1.25X2C	CVV-SB 1.25X2C	CVV-SB 1.25X2C
Refigerant	Refigerant name		R22	R22	R22
-	Control		L.E.V	L.E.V	L.E.V
Power Supply	+	Ø / V / Hz	3, 220, 60	3, 220, 60	3, 220, 60

#### Notes:

1. Capacities are based on the following conditions:

Cooling \* Indoor temp. 27°C[80.6°F]DB/ 19°C[66.2°F]WB

- \* Outdoor temp. 35°C[95°F]DB/ 24°C[75.2°F]WB
- \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero

Heating \* Indoor temp. 20°C[68°F]DB/ 15°C[59°F]WB

- \* Outdoor temp. 7°C[44.6°F]DB/ 6°C[42.8°F]WB \* Interconnecting Piping Length 7.5m
- \* Level Difference of Zero
- 2. Capacities are net capacities
- 3. Due to our policy of innovation some specifications may be changed without notification
- 4. L.E.V.:Linear Expansion Valve

#### **Conversion Formula**

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3. Protection control	213
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4.Other control	217
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# 1. Basic control

# 1.1 Normal operation

Actuator	Cooling operation	Heating operation	Stop state
Compressor	Fuzzy control	Fuzzy control	stop
Fan	Fuzzy control	Fuzzy control	stop
Main LEV	Full open	Fuzzy control	After 15min, min. pulse
4 way valve	Off	On	After 15min, Off
Subcooling LEV	Fuzzy control	min.	After 15min, min. pulse

# 1.2 Compressor control

Fuzzy control: Maintain evaporating temperature(Te) on constant state on cooling mode and condensing temperature(Tc) on constant stage on heating mode by Fuzzy control to ensure the stable system performance.

#### 1.3 Main and sub unit's LEV control

#### (1) Main LEV's fuzzy control

Main LEV operates with fuzzy control rules to keep the evaporator outlet super Heat(Superheat) stable state during heating mode

Superheat = Tsuction - Tevaporation

Tsuction: temperature at suction pipe sensor(°C)

Tevaporation: evaporation temperature equivalent to low pressure(°C)

#### (2) Sub LEV's fuzzy control

Sub LEV operates with the same rules of main LEV, but the operating range is Limited by main LEV's current opening rate

- Limited conditions: liquid back control, discharge temperature control etc.

### 1.4 subcooling LEV control

Subcooling LEV works with fuzzy rules to maintain the subcooling degree at the outlet of subcooler during cooling mode

Subcooling degree = Tcondensation -Tliquid

Tliquid: temperature at outlet of subcooler(°C)

Tcondensation: condensation temperature equivalent to high pressure(°C)

#### 1.5 Fan control

Main unit's fan motor operates with inverter drive by fuzzy control and sub units°Ø fan motors are all step motors.

For Cton	Sub unit		Main unit
Fan Step	Left fan	Right fan	Fan frequency
0	Stop	Stop	<5 Hz
1	Low	Stop	5Hz ≤ Frq < 10Hz
2	High	Stop	10 Hz ≤ Frq < 20Hz
3	Low	Low	20 Hz ≤ Frq < 30Hz
4	High	Low	30 Hz ≤ Frq < 40Hz
5	High	High	Frq ≥ 40Hz

# 1. Basic control

#### 2.1 Oil return control

### 2.1.1 Oil return control on cooling mode

Component	Starting	Running	Ending
Inv Compressor	30 Hz	60 Hz	30 Hz
Sub unit's compressor	All off	On	Off
Fan	0 Hz	High pressure control	High pressure control
Main LEV	Full open	Full open	Base pulse
4 way valve	Off	Off	Off
Subcooling LEV	min.	min.	min.
Hot gas bypass valve	Off	Off	Off

Indoor unit	Starting	Running	Ending
Fan	Keep state	Keep state	Keep state
Thermo on unit LEV	Oil return pulse	Oil return operation pulse	Return to base pulse
Thermo off unit LEV	Close pulse	Oil return operation pulse	Close pulse

- Oil return operation time: 3 min for running step
- Oil return operation skip condition : if liquid injection begins, Oil return operation goes to ending operation

# 2.1.2 Oil return control on heating mode

Component	Starting	Running	Ending
Inv Compressor	30 Hz	60 Hz	30 Hz
Sub unit's compressor	All off	On	Off
Fan	0 Hz	High pressure control	High pressure control
Main LEV	Full open	Full open	Base pulse
4 way valve	On → off	Off	On
Subcooling LEV	min.	min.	min.
Hot gas bypass valve	On	On	On

Indoor unit	Starting	Running	Ending
Fan	Off	Off	Off
Thermo on unit LEV	Oil return pulse	Oil return operation pulse	Return to base pulse
Thermo off unit LEV	Heating close pulse	Oil return operation pulse	Heating close pulse

- Oil return operation time : 3 min for running step
- Oil return operation skip condition : if liquid injection begins, Oil return operation goes to ending operation

# 2.1.3 Compressor stage during oil return control

■ Compressor stage at normal oil return state

2 unit combination : 60Hz + stage 2 3 unit combination : 60Hz + stage 3 4 unit combination : 60Hz + stage 4

### **■** High pressure limit

Pressure range	Compressor stage
2441 kPa ~ 2657 kPa	Emergncy Control
< 2441 kPa	Normal oil return

#### **■** Low pressure limit

Pressure range	Compressor stage	
> 101 kPa	Normal oil return	
36 kPa ~ 52kPa	Emergncy Control	

<sup>\*</sup> Low pressure limit under -10°C= normal limit pressure - 26kPa

# 2.1.3 Compressor stage during oil return control

Compressor stage at normal oil return state

Component	Starting	Running	Ending
Inv Compressor	30 Hz	60 Hz	30 Hz
Sub unit 's compressor	All off	On	Off
Fan	0 Hz	High pressure control	High pressure control
Main LEV	Full open	Full open	Base pulse
4 way valve	On → off	Off	On
Subcooling LEV	min.	min.	min.
Hot gas bypass valve	On	On	On

Indoor unit	Starting	Running	Ending
Fan	Off	Off	Off
Thermo on unit LEV	Oil return pulse	Oil return operation pulse	Return to base pulse
Thermo off unit LEV	Heating close pulse	Oil return operation pulse	Heating close pulse

# ■ Ending condition

- 1) All Heat exchanger pipe temperature are above 15°C
- 2) Defrost running time is over 20 min.
- 3) liquid injection begins

# 2.3 Oil equalizing control

# 2.3.1 Oil equalizing control on cooling mode

Component	Starting	Running	Ending
Inv Compressor	Equalizing control	Equalizing control	Equalizing control
Sub unit 's compressor	Equalizing control	Equalizing control	Equalizing control
Fan	High pressure control	High pressure control	High pressure control
Main LEV	Full open	Full open	Full open
4 way valve	Off	Off	Off
Subcooling LEV	Subcooling control	Subcooling control	Subcooling control
Hot gas bypass valve	Off	Off	Off

Indoor unit	Starting	Running	Ending
Fan	Normal	Normal	Normal
Thermo on unit LEV	Normal	Normal	Normal
Thermo off unit LEV	min. pulse	min. pulse	min. pulse

### ■ Ending condition

1) 4min after control begins

# 2.3 Oil equalizing control

# 2.3.2 Oil equalizing control on heating mode

Component	Starting	Running	Ending
Inv Compressor	Equalizing control	Equalizing control	Equalizing control
Sub unit's compressor	Equalizing control	Equalizing control	Equalizing control
Fan	Low pressure control	Low pressure control	Low pressure control
Main LEV	SH control	SH control	SH control
4 way valve	On	On	On
Subcooling LEV	min. pulse	min. pulse	min. pulse
Hot gas bypass valve	Off	Off	Off

Indoor unit	Starting	Running	Ending
Fan	Normal	Normal	Normal
Thermo on unit LEV	Normal	Normal	Normal
Thermo off unit LEV	min. pulse	min. pulse	min. pulse

# ■ Ending condition

<sup>1) 4</sup>min after control begins

#### 2.3.3 Equalizing control of compressors

- Equalizing control about sub unit which no compressor operates
  - No equalizing control works
- Equalizing control about sub unit which one compressor operates
  - 1) Current compressor works for 2 min after oil equalizing control begins
  - 2) Current compressor stops after 2 min.
  - 3) The other compressor work after the one compressor stops for 2 min.
  - 4) The compressor working is changed after ending of oil equalizing control.
- Equalizing control about unit which two compressor operates
  - 1) One compressor stops at beginning of oil equalizing control according to compressor stage table (stage 1 down)
  - 2) Sub unit works with only one compressor for 2 min.
  - 3) Current operating compressor stops after 2 min.
  - 4) The other compressor runs for 2 min.
  - 5) After 2 min, two compressors start to work after ending operation.(stage up)
- Equalizing control about inverter compressor
  - 1) Inverter compressor keep 30Hz operation during constant compressor operation.
  - 2) Frequency increases 80Hz after 1min.
  - 3) Inverter compressor decrease frequency to 40Hz after ending operation
- Equalizing control change condition
  - Any Indoor unit's operation mode is changed to thermo off state.
  - After equalizing control is changed, alternate equalizing control begins.
- Alternate equalizing control: it controls each compressor to turn on and turn off one by one for 2 min per 1 compressor

# 2.4 Stopping operation

# 2.4.1 Stopping operation on cooling mode

Component	Operation	Note
Inv Compressor	0 Hz	-
Sub unit's compressor	Off	-
Fan	0Hz	-
Main LEV	Full open	After 15 min from stop, min.
4 way valve	Off	Off
Subcooling LEV	Full open	After 15 min from stop, min.
Hot gas bypass	On	After 15 min from stop, Off

# 2.4.2 Stopping operation on heating mode

Component	Operation	Note
Inv Compressor	0 Hz	-
Sub unit's compressor	Off	-
Fan	0 Hz	-
Main LEV	Full open	After 15 min from stop, min.
4 way valve	On	After 15 min from stop, off
Subcooling LEV	Full open	After 15 min from stop, min.
Hot gas bypass	On	After 15 min from stop, Off

# 2.4.3 Stopping operation of sub units when only main unit operates

Component	Operation
Sub unit's compressor	Off
Fan	Depends on main unit fan frequency
Main LEV	Full open(cooling) SH control(heating)
4way valve	Same state to main unit
Hot gas bypass	Normally Off
Subcooling LEV	Subcooling control(cooling) min. pulse(heating)

# 3. Protection control

# 3.1 Pressure protection control

# 3.1.1 Pressure control on cooling mode

### ■ High pressure control

Pressure range	Compressor	Fan	Hot gas bypass
Pc>2657kPa	System stop		
2441kPa <pc 2657="" kpa<="" td="" ≤=""><td>5 Hz down/sec</td><td>10 Hz up/sec</td><td>_</td></pc>	5 Hz down/sec	10 Hz up/sec	_
2284kPa <pc td="" ≤2422kpa<=""><td>No frequency up</td><td>High pressure control</td><td>-</td></pc>	No frequency up	High pressure control	-
Pc≤2284kPa	Low pressure control	High pressure control	_

## ■ Low pressure control(above -10°C)

Pressure range	Compressor	Fan	Hot gas bypass
Pe >101kPa	Low pressure control	High pressure control	-
62 kPa< Pe≤ 101kPa	Low pressure control	No frequency up	On
49 kPa< Pe≤62kPa	5Hz down/sec	5Hz down/sec	On
Pe ≤49 kPa	≤49 kPa System stop		

<sup>•</sup> Hot gas bypass off condition : if hot gas bypass valve is on, the valve turn off above 399 kPa

# 3.1.2 Pressure control on heating mode

# ■ High pressure control

Pressure range	Compressor	Fan	Hot gas bypass
Pc>2657kPa		System stop	
2441kPa <pc td="" ≤2657kpa<=""><td>5Hz down/sec</td><td>5Hz down/sec</td><td>-</td></pc>	5Hz down/sec	5Hz down/sec	-
2108kPa <pc td="" ≤2441kpa<=""><td>High pressure control</td><td>No frequency up</td><td>-</td></pc>	High pressure control	No frequency up	-
Pc≤2108kPa	High pressure control	Low pressure control	-

# ■ Low pressure control(above -10°C)

Pressure range	Compressor	Fan	Hot gas bypass
Pe >101kPa	High pressure control	Low pressure control	-
62kPa< Pe≤ 101kPa	No frequency up	Low pressure control	-
49 kPa< Pe ≤62 kPa	5Hz down/sec	5Hz up/sec	-
Pe ≤49 kPa		System stop	

# 3.2 Discharge temperature control

■ Outdoor unit's control on cooling, heating mode

Temperature range	Compressor	Liquid injection	Subcooling LEV
Tdis >115°C	Syste	m stop	
103< Tdis ≤115 °C	If liquid injection is on, No frequency up, After 2min → 5Hz/30sec	On	Max. limit 300 pulse
98 °C <tdis td="" °c<="" ≤103=""><td>If liquid injection is on, No frequency up, After 2min → 5Hz/30sec</td><td>Keep state</td><td>If liquid is on, Max. limit 300 pulse</td></tdis>	If liquid injection is on, No frequency up, After 2min → 5Hz/30sec	Keep state	If liquid is on, Max. limit 300 pulse
Tdis ≤98 °C	Pressure control	Off	Max. limit 150 pulse
Tdis >95 °C	Pressure control	Off	10 pulse open /10sec

# ■ Indoor unit's control on cooling, heating mode

Temperature range	LEV
Tdis >115 °C	System stop
103< Tdis ≤115 °C	Emergency SH control
98 °C < Tdis ≤103 °C	Keep current control
Tdis ≤98 °C	SH control

### 3.3 Inverter protection control

item	control
AD-CT>245	System stop
230 ≤ AD-CT < 245	Inv compressor 5Hz down/sec
AD-CT < 230	Inv. Compressor normal control
DC Peak	System stop
High pressure switch	System stop
Low voltage	System stop

#### 3.4 Phase detection

#### ■ Main unit

- Inverter PCB has phase fault detection circuit. If a phase is missed or phases are reverse, Led Lamp is on when power is on.

#### ■ Sub unit

- Sub PCB has phase fault detection circuit. If a phase is missed or phases are reverse, phase fault error happen and led 6 lamp is on.
- Phase fault detection is enable only for 5 sec after power is on.

#### 3.5 Pressure switch

#### ■ Sub unit

- Sub PCB has pressure switch connecting compressor with power relay and PCB.
- Pressure switch's state is on normally, so has small current of 220V AC. Never touch the connecting terminal with hand or connect two wires directly.

# 4. Other control

### 4.1 Initial setup

- There are 4 initial setup steps before running.
- All DIP switch setting must be completed before initial setup.

### 1) Step 1: Communication check

- If all model code is displayed in 7 segment including all sub unit, communication between outdoor units is normal.
- Sub unit lights on led 5 shortly whenever it transfer information to main unit.
- If led 5 does not light on periodically, check communication wires or dip switch setting.

### 2) Step 3: PCB error check

-After 40 sec, error check begins.

### ■ Main unit

- All errors of uinits including sub units display in 7 segment.
- 2 leds representing inverter fan PCB and inverter compressor PCB communications twinkle if communications are normal.

### ■ Sub unit

- After 40 sec, led 1 is twinkle with period of 0.5sec.
- If electric phase is reverse or missed, led 6 is light on.
- Another leds exceot led 1 must turn off in initial setup steps.

### 3) Step 4: Auto addressing

- Auto addressing begin when red button in Main PCB is pressed for 6 sec.
- During auto addressing, 7 segment on main PCB display "88"
- After auto addressing, no number is displayed anymore in 7 segment except the display of number of the connected indoor unit found.

and every indoor unit's wired remocon display address of themselves.

Red button on for 6 sec.	1 2 3 4 5 6 7 8 (6 sec.)
Auto address starts	
Auto address processing(max. 8 min.)	
Total indoor units number found	(34 indoor units found)
Auto address process finishes.  Every indoor units display address and total indoor units number is disappreaed in 7 segment on main PCB	

### (4) DC peak control

- 1. Criterion for DC peak: if the fault signal from IPM (Intelligent Power Module) is occurred continuously for 1.8ms, then it is judged that DC peak occurred.
- 2. After inverter compressor turned off, 3minutes later if there is no DC peak signal, then restart compressor.
- (5) CT(current transformer) sensor fault error

Detection for CT sensor fault

Criterion for CT sensor fault(which is judged from operation current for each frequency)

	CT value
After Inverter Compressor Off	CT < 1.5A for 10 seconds

### (6) Over upper limit voltage and below lowest limit voltage

If the voltage of system input power exceed the upper limit(415V) of rating voltage(380 ~ 415V) by 15% over(478V or more) or is below the lowest limit(380V) of rating voltage by 20%(304V or less) then the compressor is turned off, and restart 3 minutes later.

### (7) Controls for error occurrence

### 1. DC peak error

- Restart 3 minutes later.
- System down if the error occurs 3 or more times in an hour

### 2. CT sensor error

- Restart 3 minutes later.
- System down if the error occurs 3 or more times in an hour- Counter reset if the error

### 3. Sensor error

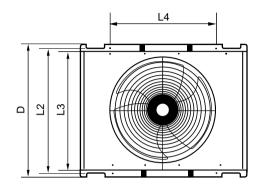
- During the error signal is on, the compressor can not be turned on

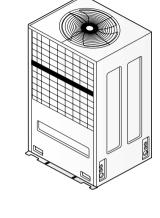
### 4. Transmission error

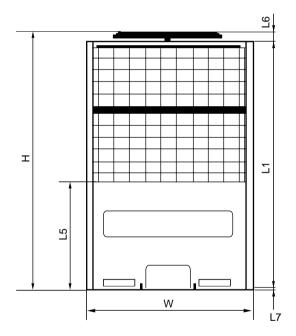
- If the transmission with all of indoor unit is ceased, then compressor is turned off
- If the transmission between inverter PC board and control PC board in outdoor unit, then all of the compressor is turned off.

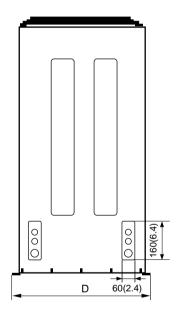
# 3. Dimensions

# 3.1 1 Outdoor Unit(Half Size)



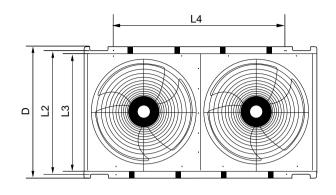


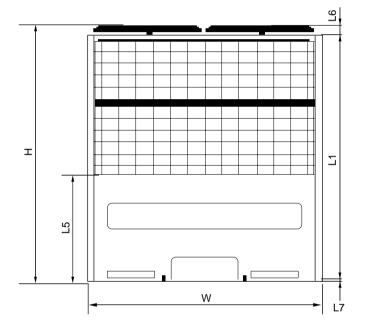


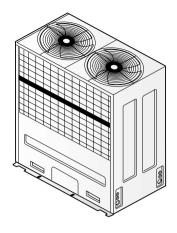


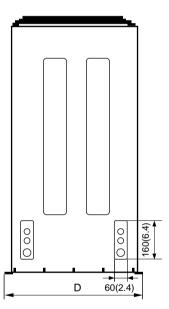
W	mm(inch)	806(31.5)
Н	mm(inch)	1555(61.2)
D	mm(inch)	730(28.7)
L1	mm(inch)	1479(58.3)
L2	mm(inch)	700(27.6)
L3	mm(inch)	690(27.2)
L4	mm(inch)	500(19.7)
L5	mm(inch)	705(27.8)
L6	mm(inch)	48(1.9)
L7	mm(inch)	28(1.1)

# 3.2 1 Outdoor Unit



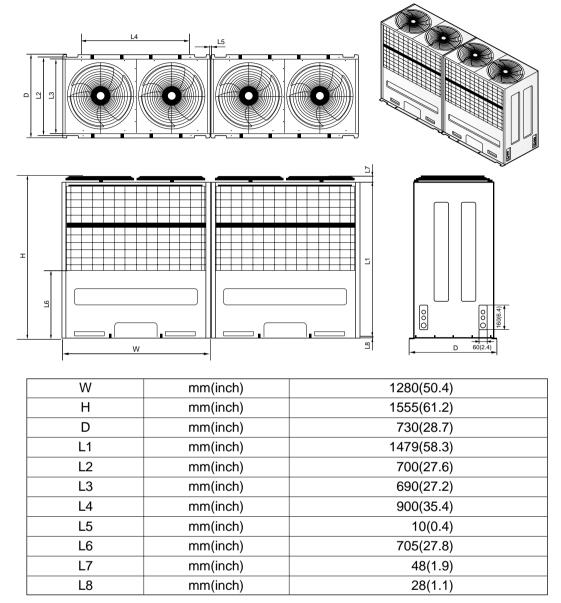






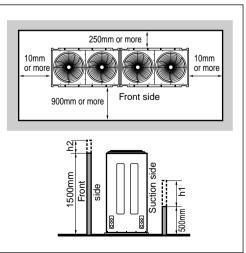
W	mm(inch)	1280(50.4)
Н	mm(inch)	1555(61.2)
D	mm(inch)	730(28.7)
L1	mm(inch)	1479(58.3)
L2	mm(inch)	700(27.6)
L3	mm(inch)	690(27.2)
L4	mm(inch)	900(35.4)
L5	mm(inch)	705(27.8)
L6	mm(inch)	48(1.9)
L7	mm(inch)	28(1.1)

### 3.2 2 Outdoor Unit

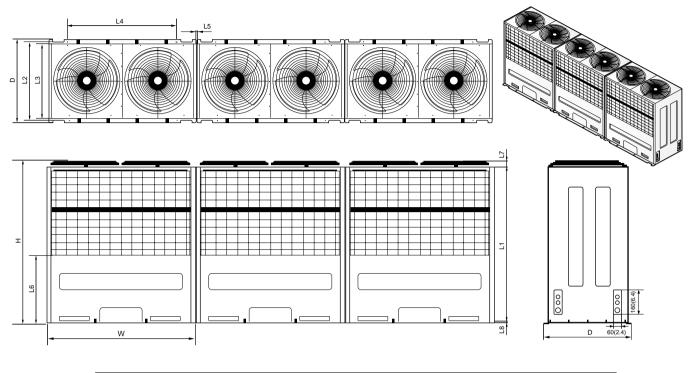


### Notes:

- High of walls in case of pattern1: Front side:1500mm, Suction side:500mm
- 2. If the above wall heights are exceeded then h1/2 and h2/2 should be added to the front and suction side service spaces respectively as shown in the following figure.
- 3. When installing the units, the most appropriate pattern should be selected from those shown.
  - In order to obtain the best fit in the space available always bear in mind the need to leave enough room for a person to pass between units and wall and for the air to circulate freely. Your layout should be taken account of the possibility of short circuits.
- 4. The Units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.



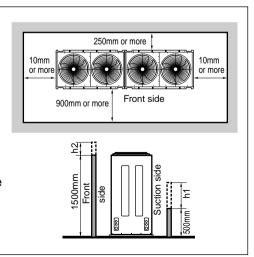
### 3.2 3 Outdoor Unit



W	mm(inch)	1280(50.4)
Н	mm(inch)	1555(61.2)
D	mm(inch)	730(28.7)
L1	mm(inch)	1479(58.3)
L2	mm(inch)	700(27.6)
L3	mm(inch)	690(27.2)
L4	mm(inch)	900(35.4)
L5	mm(inch)	10(0.4)
L6	mm(inch)	705(27.8)
L7	mm(inch)	48(1.9)
L8	mm(inch)	28(1.1)

### Notes:

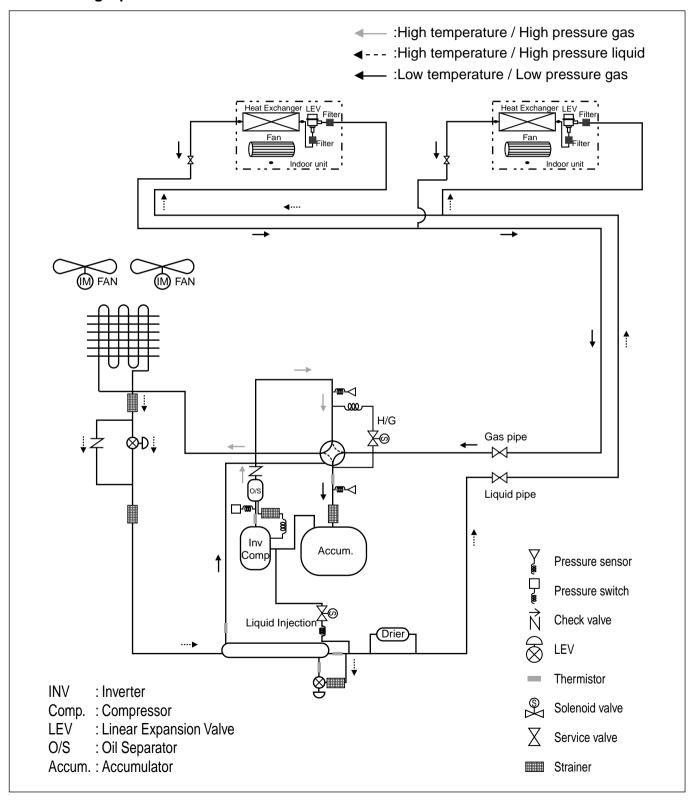
- 1. High of walls in case of pattern1: Front side:1500mm, Suction side:500mm
- 2. If the above wall heights are exceeded then h1/2 and h2/2 should be added to the front and suction side service spaces respectively as shown in the following figure.
- 3. When installing the units, the most appropriate pattern should be selected from those shown.
  - In order to obtain the best fit in the space available always bear in mind the need to leave enough room for a person to pass between units and wall and for the air to circulate freely. Your layout should be taken account of the possibility of short circuits.
- 4. The Units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.



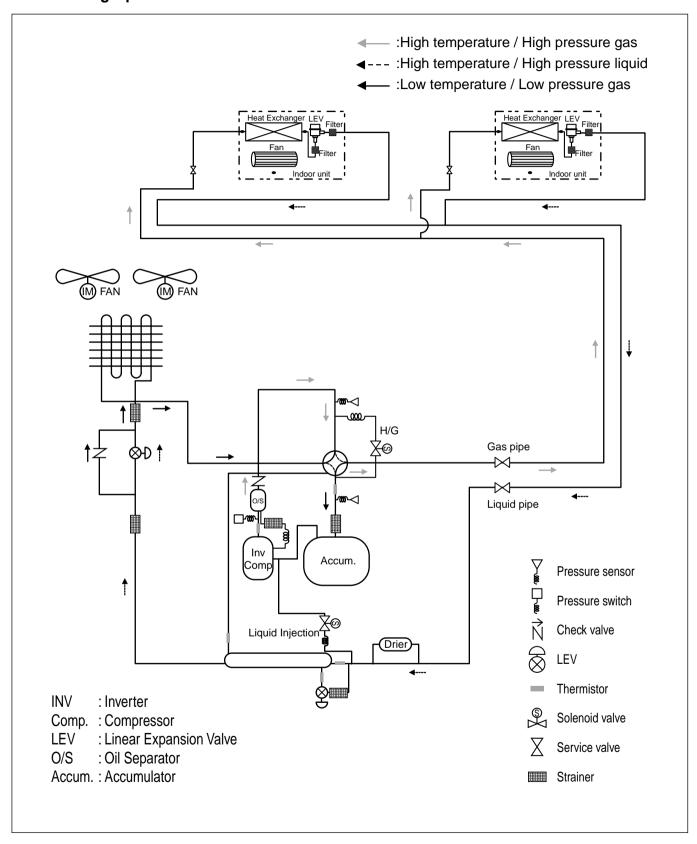
# 4. Piping Diagrams

# 4.1 Refrigerant Flow for Each Operation Mode

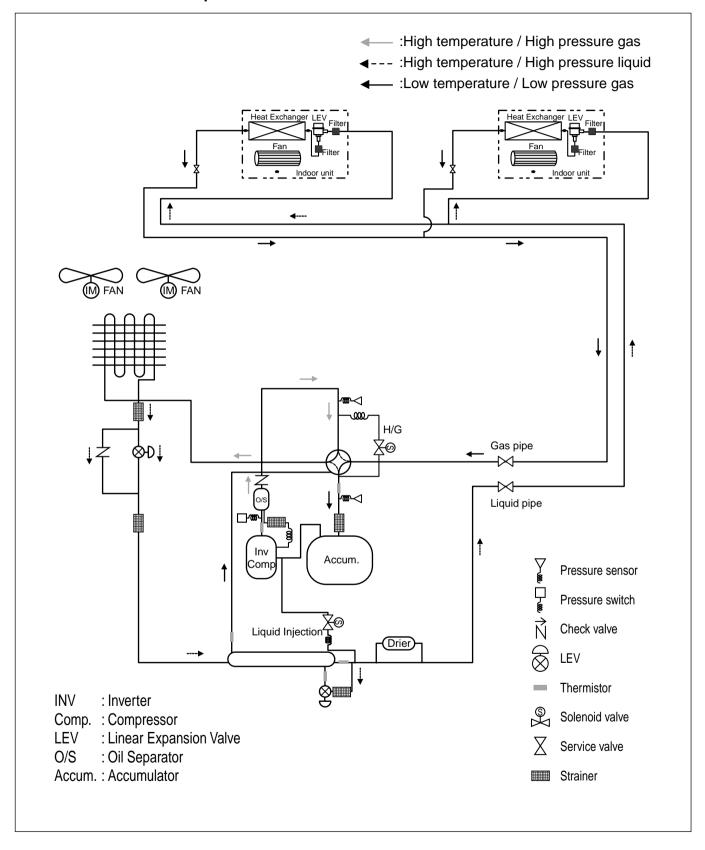
# 4.1.1 Cooling Operation



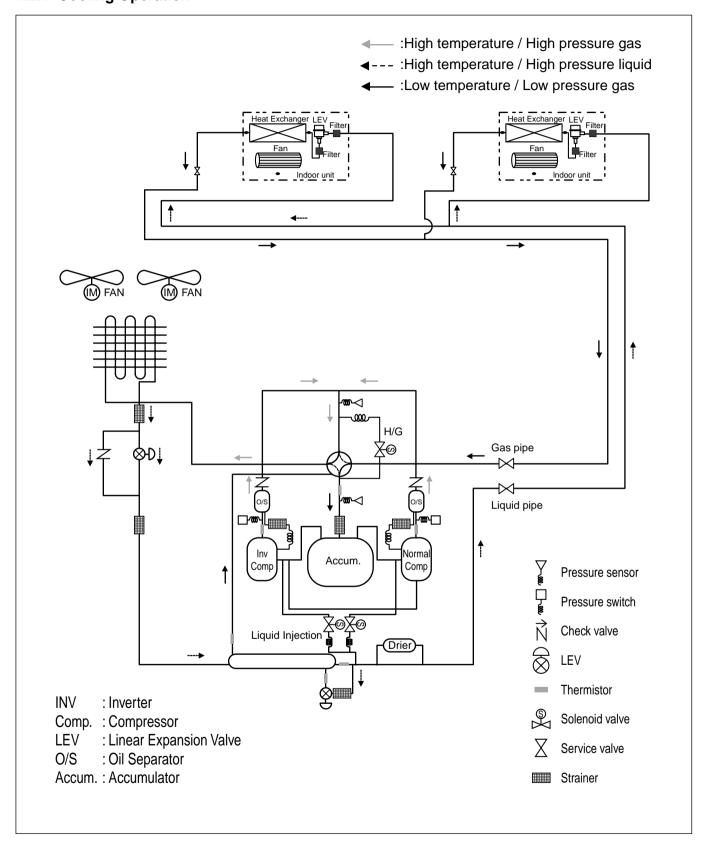
# 4.1.2 Heating Operation



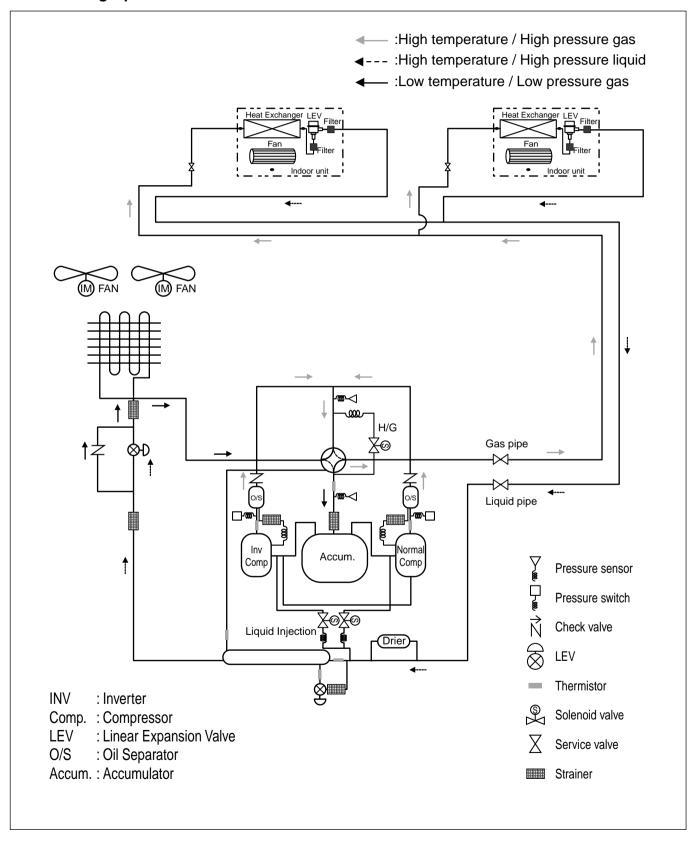
# 4.1.3 Oil Return/Defrost Operation



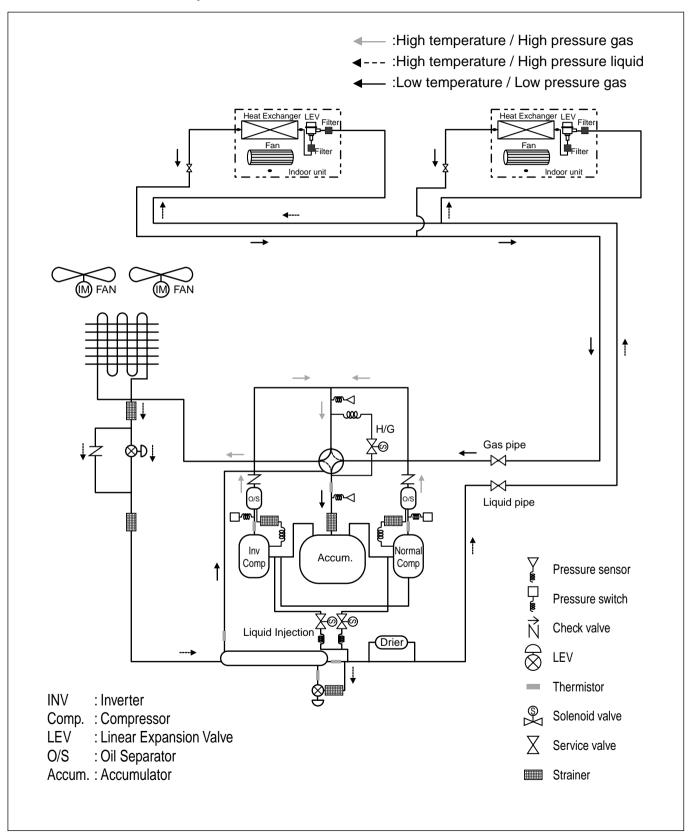
# 4.2.1 Cooling Operation



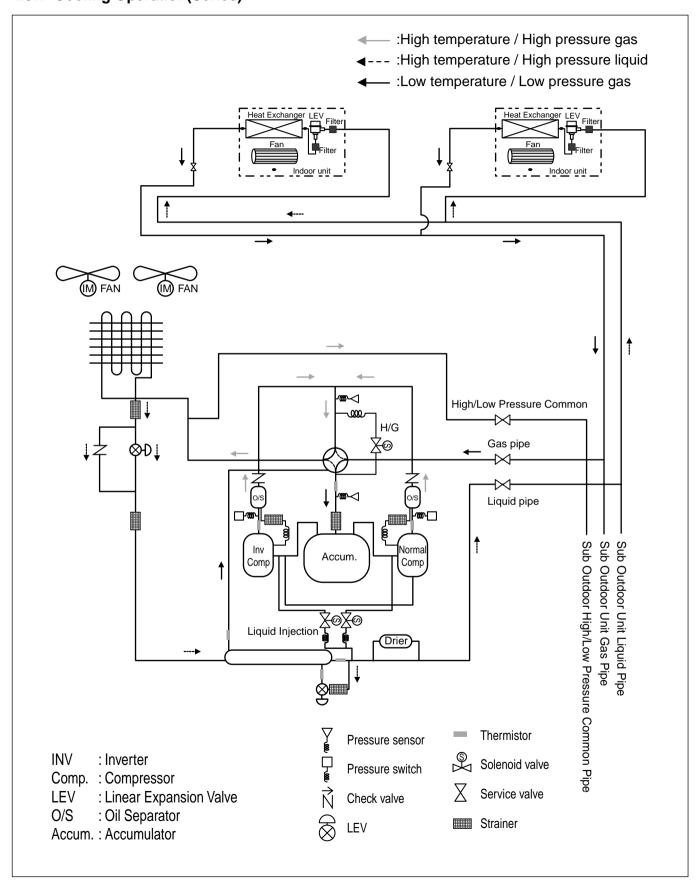
# 4.2.2 Heating Operation



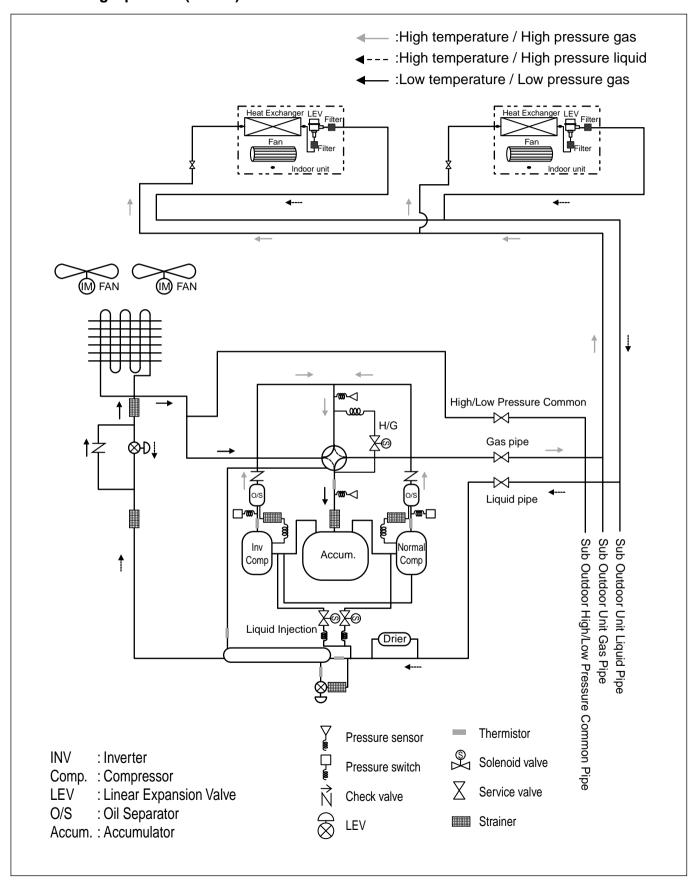
# 4.2.3 Oil Return/Defrost Operation



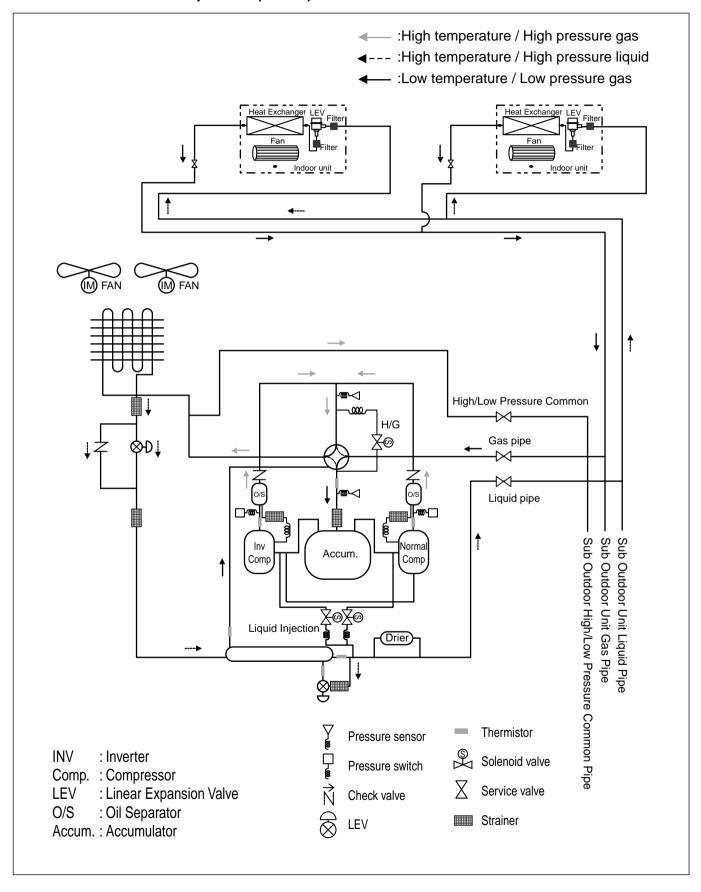
# 4.3.1 Cooling Operation(Series)



# 4.3.2 Heating Operation(Series)

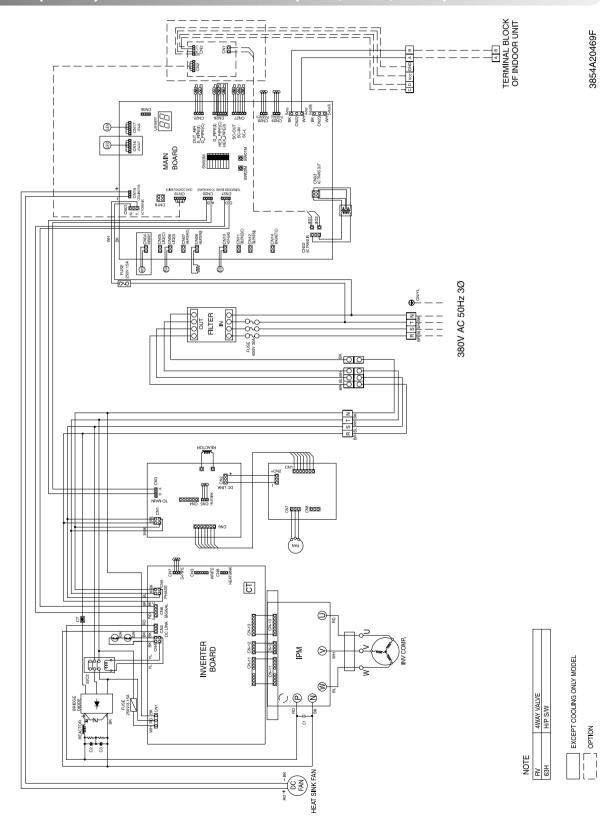


# 4.3.3 Oil return/Defrost Operation(Series)



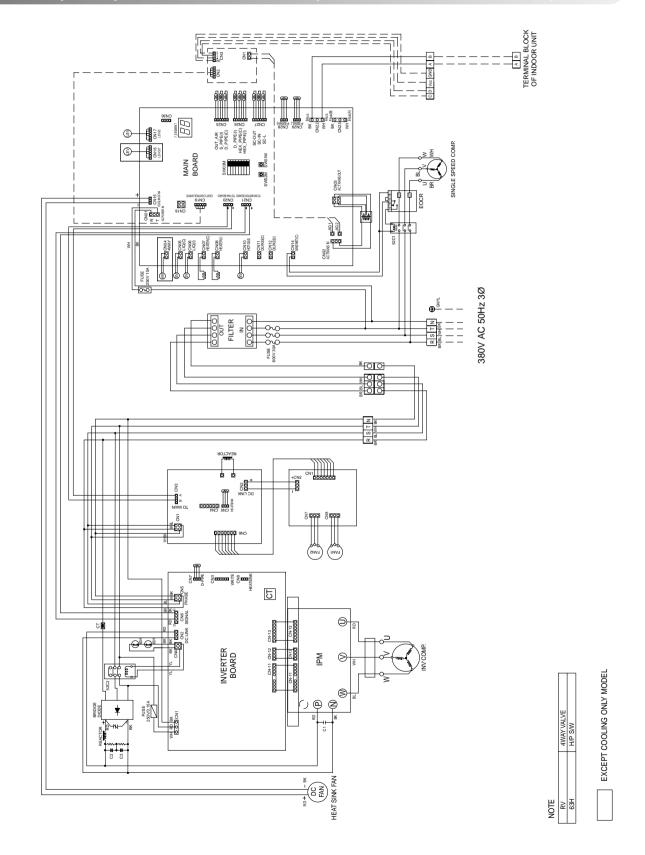
# 5. Wiring Diagrams

# 5.1 50Hz(380V) Main Outdoor Unit(5HP, 6HP, 8HP)

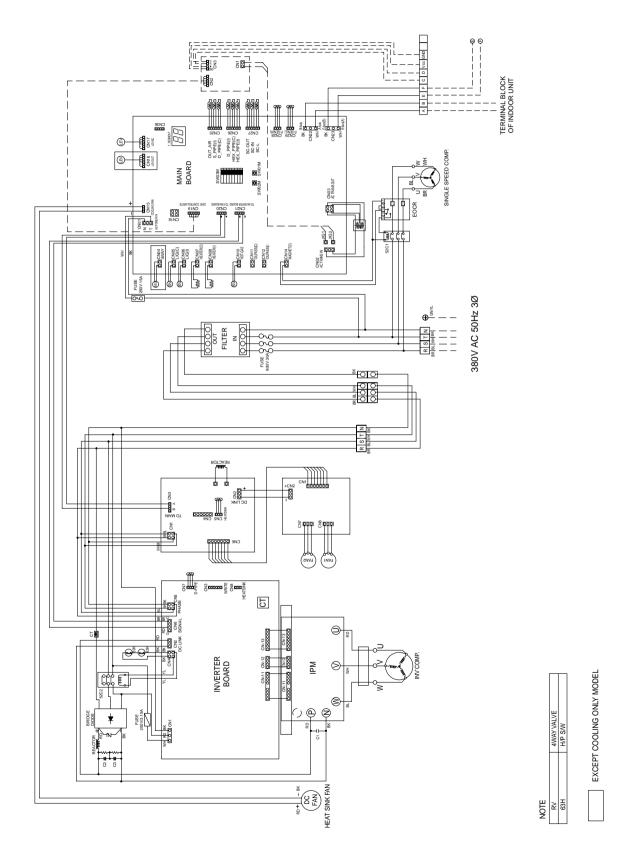


# **OUTDOOR WIRING DIAGRAM**

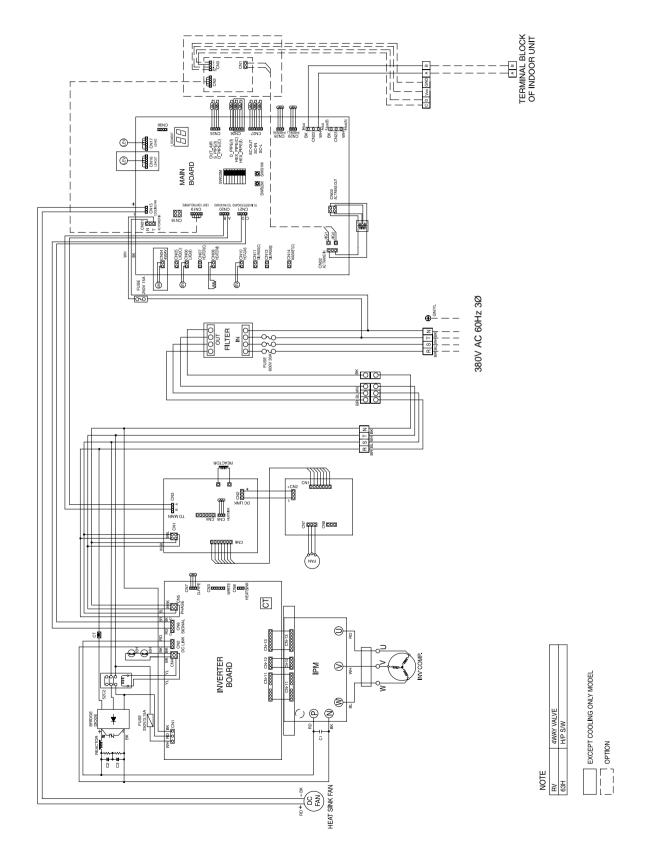
# 5.2 50Hz(380V) Main Outdoor Unit(8HP, 10HP, 12HP, 14HP)



# 5.3 50Hz(380V) Main Outdoor Unit(16~40HP)

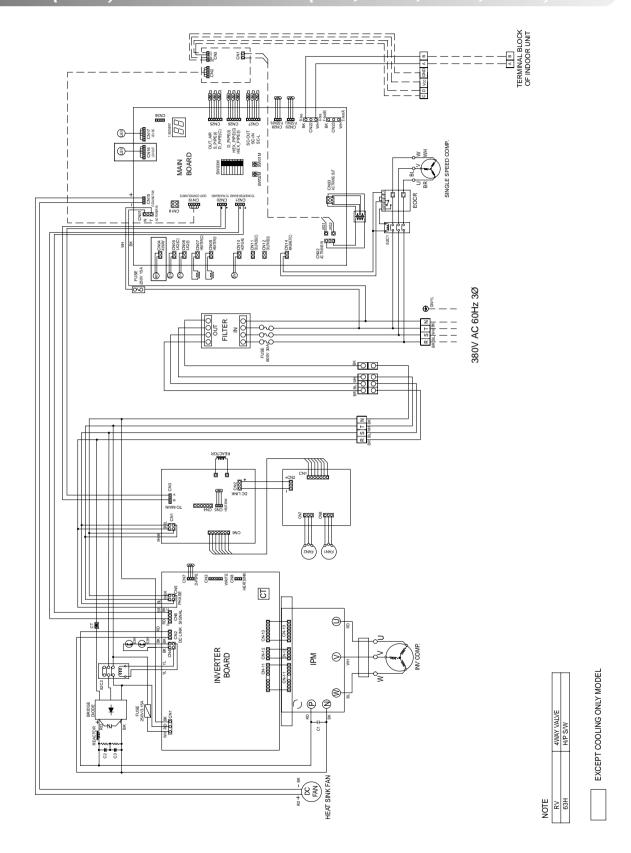


# 5.4 60Hz(380V) Main Outdoor Unit(5HP, 6HP, 8HP)



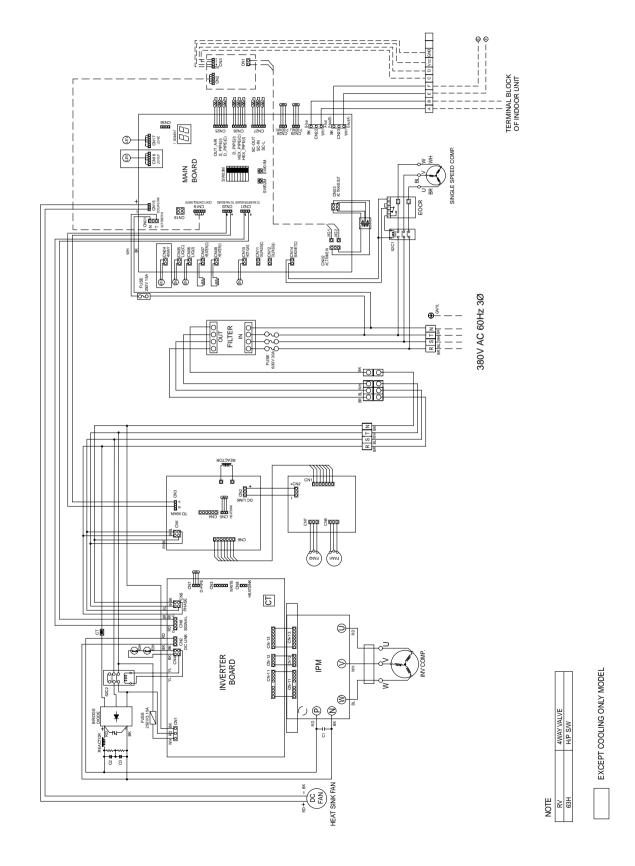
# **OUTDOOR WIRING DIAGRAM**

# 5.5 60Hz(380V) Main Outdoor Unit(8HP, 10HP, 12HP, 14HP)

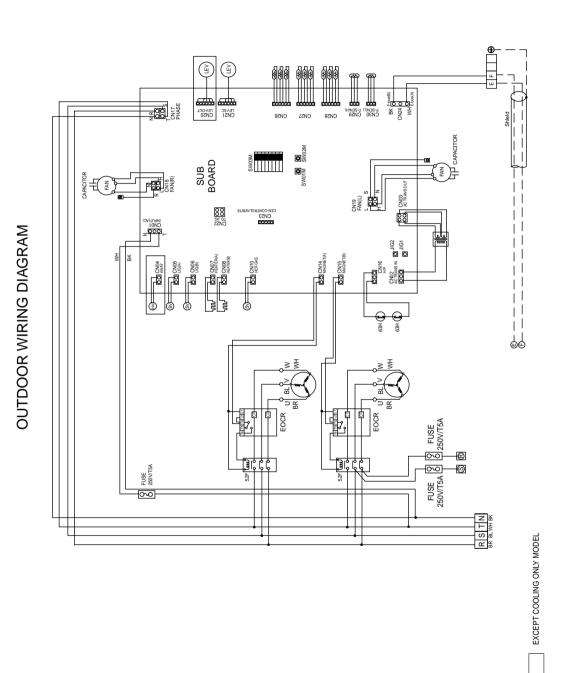


# **OUTDOOR WIRING DIAGRAM**

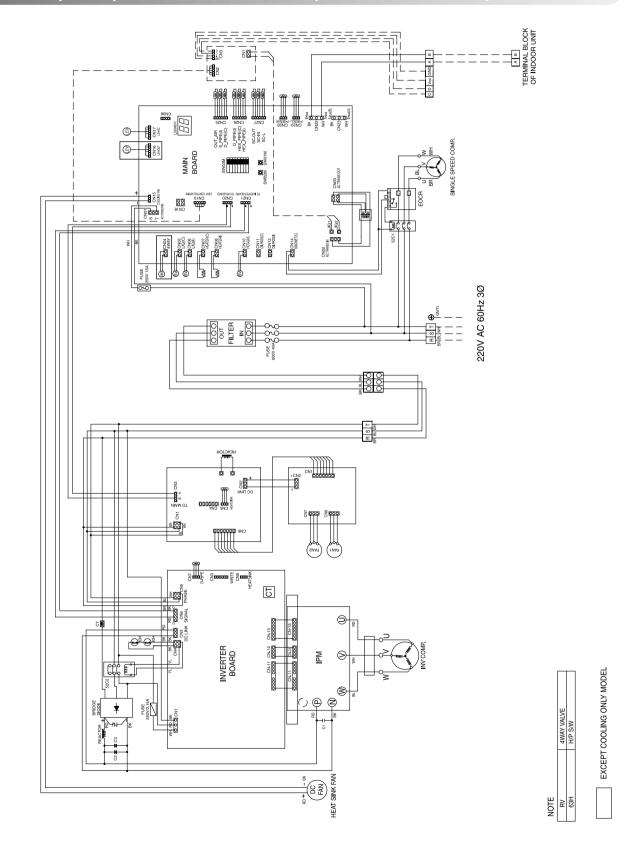
# 5.6 60Hz(380V) Main Outdoor Unit(16~40HP)



# 5.7 50, 60Hz Sub Outdoor Unit(16~40HP)



# 5.8 60Hz(220V) Main Outdoor Unit(8HP, 10HP, 12HP)



# **Inverter Board**

CONNECTOR No.	SPEC	COLOR	DESCRIPTION
CN1	POWER	YL	AC POWER
CN2	DC-LINK	RD	DC LINK VOLTAGE DETECT
CN3	WRITE	WH	ON BOARD WRITING
CN4	H/P, M	GRAY	HIGH PRESSURE MAGNETIC SWITCH
CN5	PHASE	NT	3 PHASE DETECT
CN6	SIGNAL	RD	TRANXMISSION WITH CONTROL BOARD
CN10, 11, 12	IPM	WH	PWM SIGNAL
CN13	IPM	WH	PWM CONTROL POWER

# **Main Board**

CONNECTOR No.	SPEC	COLOR	DESCRIPTION
CN01	AC POWER IN	NT	AC POWER
CN02	AC TRANS IN	NT	AC POWER TO TRANS
CN03	AC TRANS OUT	YL	AC POWER FROM TRANS
CN04	4WAY	BK	4WAY REVERSING VALVE
CN05	LIQ(I)	RD	INVERTER COMP LIQUID INJECTION VALVE
CN06	LIQ(C)	GY	CONSTANT COMP LIQUID INJECTION VALVE
CN07	HEATER(I)	YL	INVERTER COMP CRANK HEATER
CN08	HEATER(C)	WH	CONSTANT COMP CRANK HEATER
CN10	HOT-GAS	GR	HOT GAS BYPASS VALVE
CN11	OILPASS(I)	BL	NOT USE
CN12	OILPASS(C)	OR	NOT USE
CN14	MAGNET(C)	BR	MAGNETIC SWITCH
CN15	COOLING FAN	YL	HEATSINK FAN
CN16	LEV-OUT	RD	LINEAR EXPANSION VALVE(MAIN)
CN17	LEV-SC	BL	LINEAR EXPANSION VALVE(SUBCOOLING CIRCUIT)
CN18	TO-JIG	NT	TRANSMISSION WITH JIG
CN19	CEN-CONTROL/WRITE	BL	TRANSMISSION WITH CENTRAL CONTROLLER
CN20	TO FAN BOARD	BL	TRANSMISSION WITH FAN BOARD
CN21	TO INVERTER BOARD	RD	TRANSMISSION WITH INVERTER BOARD
CN22	TO INDOOR UNIT	WH	TRANSMISSION WITH INDOOR UNIT
CN23	TO SUB OUTDOOR	BK	TRANSMISSION WITH SUB OUTDOOR UNIT
	OUT-AIR		OUTDOOR AIR THERMISTOR
CN25	S_PIPE(I)	BK	INVERTER COMP SUCTION PIPE THERMISTOR
	D_PIPE(C)		CONSTANT COMP DISCHARGE PIPE THERMISTOR
	D_PIPE(I)		INVERTER COMP DISCHARGE PIPE THERMISTOR
CN26	HEX_PIPE(C)	VT	CONDENSOR PIPE THERMISTOR(C)
	HEX_PIPE(I)		CONDENSOR PIPE THERMISTOR(I)
	SC-OUT		SUBCOOLING CIRCUIT OUTLET PIPE THERMISTOR
CN27	SC-IN	YL	SUBCOOLING CIRCUIT INLET PIPE THERMISTOR
	SC-L		SUBCOOLING CIRCUIT LIQUID PIPE THERMISTOR
CN28	P-SEN(H)	RD	HIGH PRESSURE SENSOR
CN29	P-SEN(L)	BL	LOW PRESSURE SENSOR
JIG 1	JIG	WH	JIG POWER
JIG 2	JIG	WH	JIG POWER

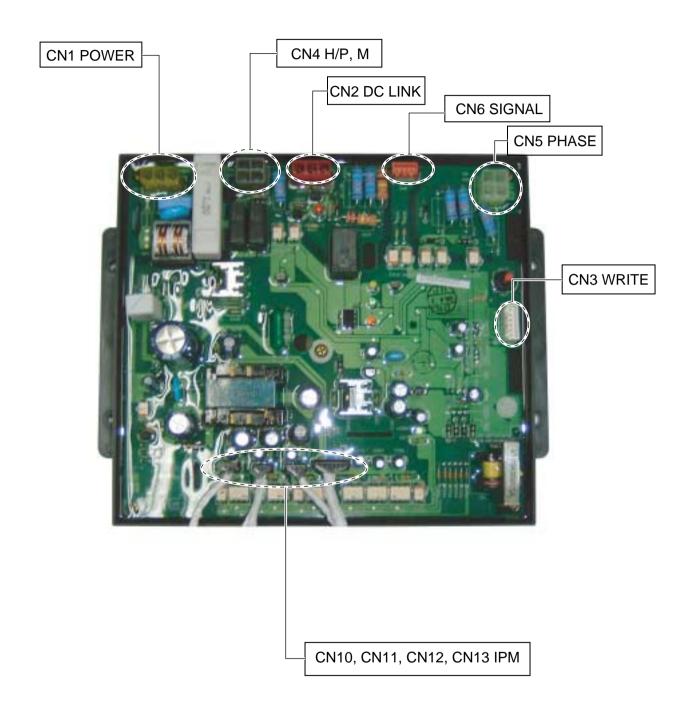
# **Sub Board**

CONNECTOR No.	SPEC	COLOR	DESCRIPTION	
CN01	AC POWER IN	NT	AC POWER	
CN02	AC TRANS IN	NT	NT AC POWER TO TRANS	
CN03	AC TRANS OUT	YL	AC POWER FROM TRANS	
CN04	4WAY	BK	4WAY REVERSING VALVE	
CN05	LIQ(A)	RD	CONSTANT(A) COMP LIQUID INJECTION VALVE	
CN06	LIQ(B)	GY	CONSTANT(B) COMP LIQUID INJECTION VALVE	
CN07	HEATER(A)	YL	CONSTANT(A) COMP CRANK HEATER	
CN08	HEATER(B)	WH	CONSTANT(B) COMP CRANK HEATER	
CN10	HOT-GAS	GR	HOT GAS BYPASS VALVE	
CN11	OILPASS(A)	BL	NOT USE	
CN12	OILPASS(B)	OR	NOT USE	
CN14	MAGNET(A)	RD	CONSTANT(A) COMP MAGNETIC SWITCH	
CN15	MAGNET(B)	BL	CONSTANT(B) COMP MAGNETIC SWITCH	
CN16	H/P	BL	HIGH PRESSURE	
CN17	PHASE	NT	3 PHASE DETECT	
CN18	FAN(R)	RD	FAN MOTOR(RIGHT)	
CN19	FAN(L)	BL	FAN MOTOR(LEFT)	
CN20	LEV-OUT	RD LINEAR EXPANSION VALVE(MAIN)		
CN21	LEV-SC	BL	LINEAR EXPANSION VALVE(SUBCOOLING CIRCUIT)	
CN22	TO JIG	NT	TRANSMISSION WITH JIG	
CN23	CEN_CONTROL/WRITE	BL	NOT USE	
CN24	TO MAIN OUTDOOR	BK	TRANSMISSION WITH MAIN OUTDOOR UNIT	
	OUT-AIR		OUTDOOR AIR THERMISTOR	
CN26	S_PIPE(A)	BK	CONSTANT(A) COMP SUCTION PIPE THERMISTOR	
	D_PIPE(B)		CONSTANT(B) COMP DISCHARGE PIPE THERMISTOR	
	D_PIPE(A)		CONSTANT(A) COMP DISCHARGE PIPE THERMISTOR	
CN27	HEX_PIPE(A)	VT	CONDENSOR PIPE THERMISTOR(A)	
	HEX_PIPE(B)		CONDENSOR PIPE THERMISTOR(B)	
	SC-OUT		SUBCOOLING CIRCUIT OUTLET PIPE THERMISTOR	
CN28	SC-IN	YL	SUBCOOLING CIRCUIT INLET PIPE THERMISTOR	
	SC-L		SUBCOOLING CIRCUIT LIQUID PIPE THERMISTOR	
CN29	P-SEN(H)	RD	HIGH PRESSURE SENSOR	
CN30	P-SEN(L)	BL	LOW PRESSURE SENSOR	
JIG1	JIG	WH	JIG POWER	
JIG2	JIG	WH	JIG POWER	

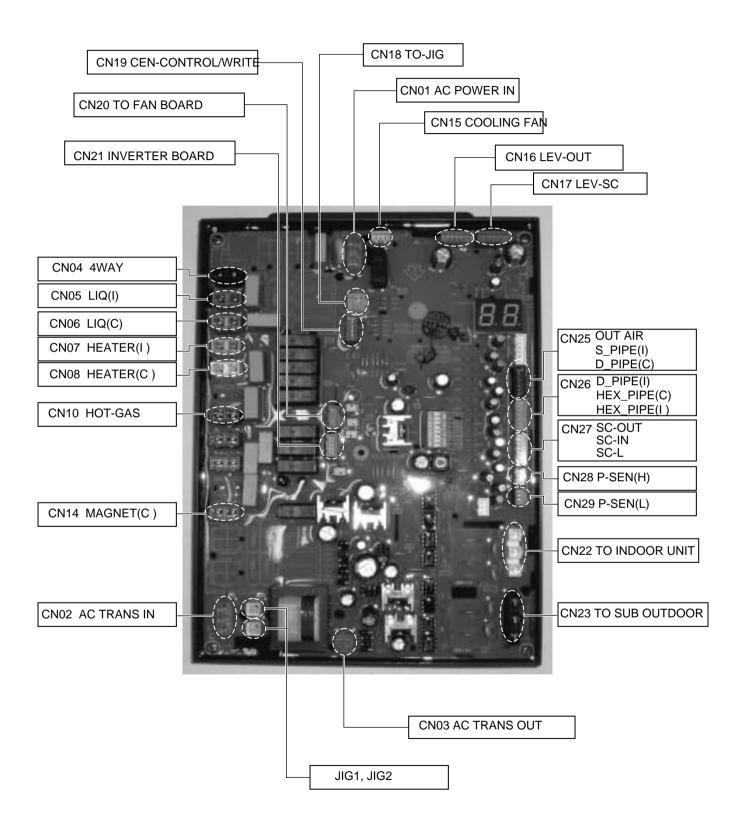
# **COLOR**

WHITE
RED
BULE
YELLOW
GRAY
GREEN
NATURAL
BLACK
VIOLET
ORANGE
BROWN

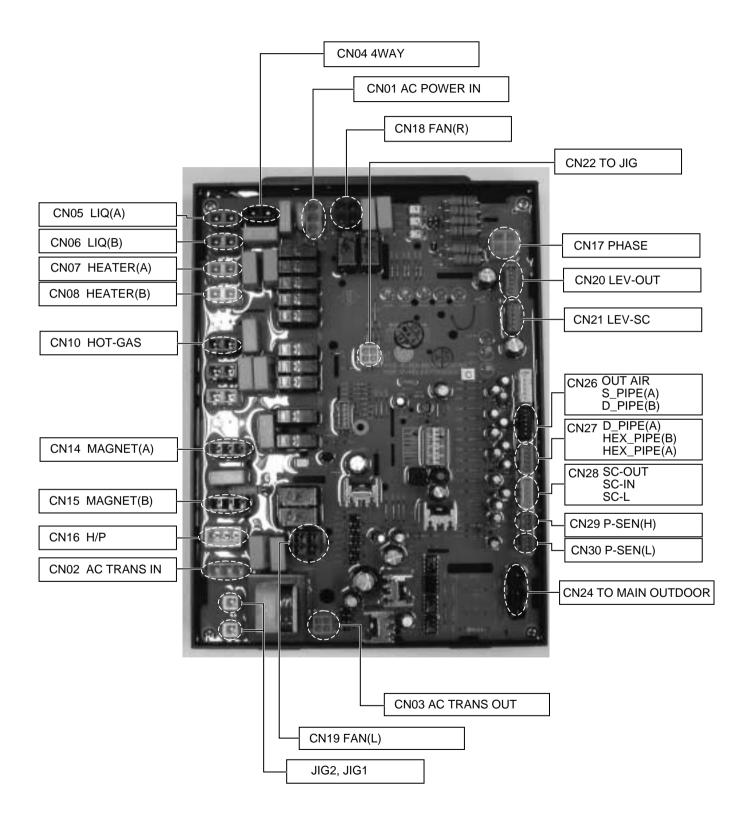
# **Inverter Board**



# **Main Board**



# **Sub Board**



# Trouble shooting guide

# **Trouble shooting guide**

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# 1. The phenomena from main component failure

# The phenomena from main component failure

Component	Phenomenon	Cause	Check method and Trouble shooting
	Not operating	Motor insulation broken	Check resistance between terminals and chassis
		Strainer locking	Service necessary
Compressor		Oil shortage	Open drain cock and check oil
	Stop during running	Motor insulation failure	Check resistance between terminals and chassis
	Loud noise during running	Phase sequence fault	Check wiring(R, S, T) sequence, or Inter change last two phase connection.
Outdoor fan	High pressure error at cooling	Motor failure, Bad ventilation around outdoor heat exchanger	Check the outdoor fan operation after being turned the Outdoor Unit off for some time. Remove obstacles around the Outdoor Unit
	Heating failure, frequent defrosting	Bad connector contact	Check connector
Outdoor	No operating sound at applying power	Coil failure	Check resistance between terminals
LEV	Heating failure, Frozen outdoor heat exchanger part	LEV clogged	Service necessary
	Low pressure error or discharge temperature error	LEV clogged	Service necessary

When system fault occurs, the error code is displayed at Indoor Unit display or remote control display, the trouble shooting guide is in the service manual

# 2. Checking Method for Key Fompornents

# 2.1 Compressor

Check and ensure in following order when error related with the compressor or error related with power occurs during operation:

No.	Checking Item	Symptom	Countermeasure
1	Is how long power on during operation?	1) Power on for 12 hours or more	* Go to No.2.
		2) Power on for 12 hours or less	* Go to No.2 after applying power for designated time (12 hours).
2	Does failure appears again when starting operation?	The compressor stops andsame error appears again.	* Check IMP may fail.
	Method to measure insulation resistance  Comp. pipe Motor  Figure 1.  Method to measure coil	2) If output voltage of the inverter is stably output. *1	* Check coil resistor and insulation resistor. If normal, restart the unit. If same symptom occurs, replace the compressor.  * Insulation resistor: 2MW or more Coil resistor: U-V: 1.30±7%Ω V-W: 1.33±7%Ω W-U: 1.36±7%Ω
	resistance  Comp.  Motor  G  Figure 2.	3) If output voltage of the inverter is unstable or it is 0V.  (When incapable of using a digital tester)	* Check the IPM.  If the IPM is normal, replace the inverter board.  * Check coil resistor and insulation resistor.

### [Cautions when measuring voltage and current of inverter power circuit]

Measuring values may differ depending on measuring tools and measuring circuits since voltage, current in the power supply or output side of the inverter has no since waveform.

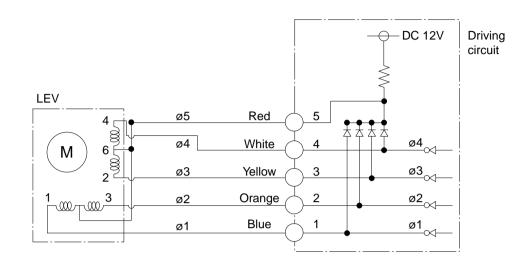
Especially, output voltage changes when output voltage of the inverter has a pattern of pulse wave. In addition, measuring values appear largely differently depending on measuring tools.

- 1) If using a movable tester when checking that output voltage of the inverter is constant (when comparing relative voltage between lines), always use an analog tester. Especially exercise particular caution if the output frequency of the inverter is low, when using a movable tester, where change of measured voltage values is large between other lines, when virtually same values appear actually or where there is danger to determine that failure of the inverter occurred.
- 2) You can use rectification voltmeter (→→) if using commercial frequency tester when measuring output values of the inverter (when measuring absolute values). Accurate measuring values cannot be obtained with a general movable tester (For analog and digital mode).

# 2.2 Fan Motor

Checking Item	Symptom	Countermeasure		
(1) The fan motor does not operate.  Does failure appears	When power supply is abnormal	* Modify connection status in front of or at the rear of the breaker, or if the power terminal console is at frosting condition.		
again when starting operation?		* Modify the power supply voltage is beyond specified scope.		
	2) For wrong wiring	* For following wiring.		
(2) Vibration of the fan		1. Check connection status.		
motor is large.		2. Check contact of the connector.		
		3. Check that parts are firmly secured by tightening screws.		
		4. Check connection of polarity.		
		5. Check short circuit and grounding.		
	3) For failure of motor	* Measure winding resistance of the motor coils. Main outdoor unit: INV [19.0±7% $\Omega$ (75°C)] Sub outdoor unit: Main [22.8±7% $\Omega$ (75°C)] R1 [34.8±7% $\Omega$ (75°C)] R2 [3.7±7% $\Omega$ (75°C)]		
	4) For defective fuse 5) For failure of circuit board	<ul> <li>* Replace the fuse if there is defect (Fuse 800V 30A).</li> <li>Replace the circuit board in following procedures if problems occur again when powering on and if there are no matters equivalent to items as specified in above 1) through 4).</li> <li>(Carefully check both connector and grounding wires when replacing the circuit board.)</li> <li>1. Replace only fan control boards. If starting is done, it means that the fan control board has defect.</li> <li>2. Replace both fan control board and the main board. If starting is done, it means that the main board has defect.</li> <li>3. If problems continue to occur even after countermeasure of No.1 and No.2, it means that both boards has defect.</li> </ul>		

# 2.3 Linear Empansion Valve



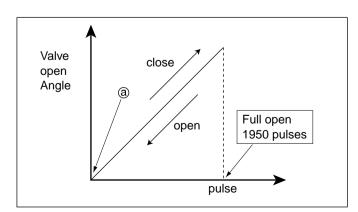
### • Pulse signal output value and valve operation

Output(ø) No.	Output state							
	1	2	3	4	5	6	7	8
ø1	ON	OFF	OFF	OFF	OFF	OFF	ON	ON
ø2	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
ø3	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
ø4	OFF	OFF	OFF	OFF	ON	ON	ON	OFF

### • Output pulse sequence

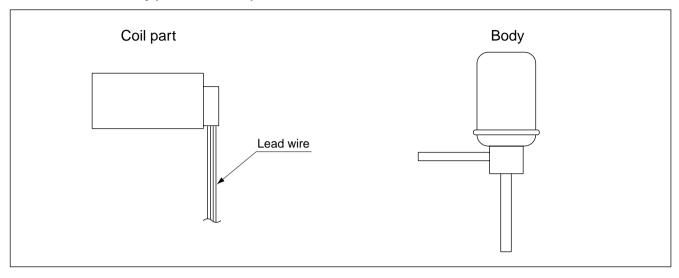
- In valve close state:  $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow 6 \rightarrow 7 \rightarrow 8 \rightarrow 1$
- In valve open state:  $8 \rightarrow 7 \rightarrow 6 \rightarrow 5 \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 1 \rightarrow 8$
- \* 1. If LEV open angle is not change, all of output phase will be OFF
  - 2. If output phase is different or continuously in the ON state, motor will not operate smoothly and start vibrating.

### LEV valve operation

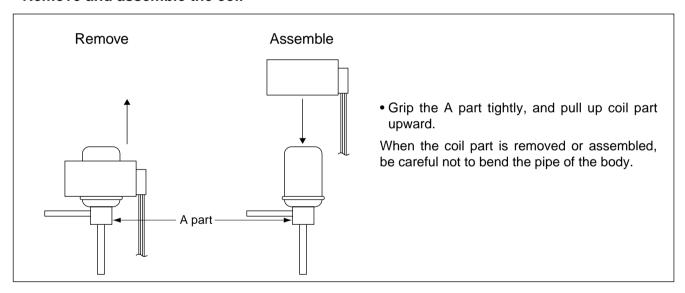


- At power ON, open angle signal of 2000 pulses output and valve position is set to ⓐ
- If valve is operated smoothly, no noise and vibration is occurred and if valve is closed. noise occurs.
- If you contact screw driver to LEV, and contact your ear to driver hand grip. you can confirm the noise from LEV.
- If liquid refrigerant is in LEV, the noise is lower.

# • LEV Coil and body(Outdoor unit)



# • Remove and assemble the coil



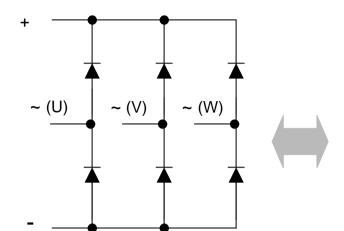
# • LEV failure check method

\* Attention: Outdoor unit LEV and Indoor unit LEV are different in specification, so the repair process may be different

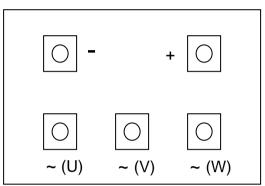
Failure mode	Diagnosis	Repair process	Unit
Microcomputer Driving circuit failure	1.Disconnect the LEV connector form control board and connect testing LED	Check and replace Indoor unit control board	Indoor unit
LEV locking	1.If LEV is locked, in no load state, the driving motor rotate, and clicking sound always occurs	Replace LEV	Indoor / Outdoor unit
LEV Motor coil short or misconnection	1. Check the resistance between coil terminal (red-white, red-yellow, red-orange, red-blue) 2. If the estimated resistance value is in $52 \pm 3\Omega$ then the LEV is normal	Replace LEV	Outdoor unit
	1. Check the resistance between coil terminal (brown-white, brown-yellow, brown-orange, brown-blue) 2. If the estimated resistance value is in $150 \pm 10\Omega$ then the LEV is normal	Replace LEV	Indoor unit
Full closing (valve leakage)	Operate indoor unit with FAN mode and operate another indoor unit with COOLING mode     Check indoor unit(FAN mode) liquid pipe temperature (from operation monitor of outdoor unit control board)     When fan rotate and LEV is fully closed, if there is any leakage, then the temperature is down  If estimated temperature is very low in comparison with suction temperature which is displayed at remote controller then the valve is not fully closed	If the amount of leakage is much, Replace LEV	Indoor unit

# 2.4 3Phase Bridge Diode

#### Internal circuit diagram



#### **Appearance**



- Unplug the + terminal of electrolytic capacitor from the + terminal of 3phase bridge diode
- 2. Set the multi meter to resistance mode Check and estimate the resistance between each pair of terminal (+, -),  $(+, \sim(U))$ ,  $(+, \sim(V))$ ,  $(+, \sim(W))$ ,  $(\sim(U), -)$ ,  $(\sim(V), -)$ ,  $(\sim(W), -)$ , the estimated value should be large enough to Mega Ohm unit.
- 3. Set the multi meter to diode mode, and estimate between each pair of terminal (~(U), +), (~(V), +), (~(W), +), (-, ~(U)), (-, ~(V)), (-, ~(W)), the estimated value should be stable and be in between 0 to 1. (ex: 0.35, 0.46 etc.)



If one of the above articles is not satisfied, bridge diode must be inferior and to be replaced

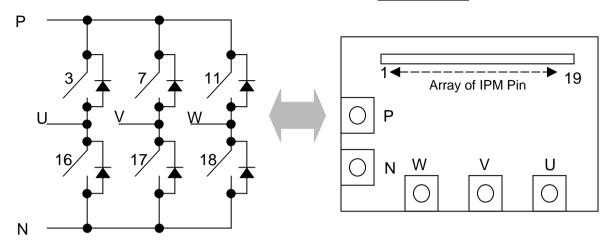
Caution

In case that the control box is opened and before checking electrical parts, it should be checked that the LED 01Y (in inverter board, refer to page 172) turned off (wait 3 minutes after main power OFF), otherwise it may cause electrical shock.

# 2.5 IPM(Integrated Power Module)

#### Internal circuit diagram

#### **Appearance**



- 1. Unplug the +, terminal of electrolytic capacitor from the P and N terminal of IPM
- Set the multi meter to resistance mode
   Check and estimate the resistance between each pair of terminal
   (P, N), (P, U), (P, V), (P, W), (U, N), (V, N), (W, N), the estimated value should be large enough to Mega Ohm unit.
- 3. Set the multi meter to resistance mode Check and estimate the resistance between each pair of terminal (3, U), (7, V), (11, W), (16, N), (17, N), (18, N), the estimated value should be large enough to Mega Ohm unit. the check point is inside of the screw hole (U, V, W, N), if check points are plate face of the terminal, then estimated values are gate resistance.
- 4. Set the multi meter to diode mode, and estimate between each pair of terminal (U, P), (V, P), (W, P), (N, U), (N, V), (N, W), the estimated value should be stable and be in between 0 to 1. (ex: 0.35, 0.46 etc.)



If one of the above articles is not satisfied, IPM must be inferior and is to be replaced

Caution

In case that the control box is opened and before checking electrical parts, it should be checked that the LED 01Y (in inverter board, refer to page 172) turned off (wait 3 minutes after main power OFF), otherwise it may cause electrical shock.

# 2.6 Other

### **Electrolytic capacitor and resistor for voltage distribution**

- 1) Disconnect an terminal of voltage distribution resistor from each DC link electrolytic capacitor
- 2) Set the multi meter to resistance mode, connect the probe to +,- terminal of the capacitor. If the estimated resistance value is increase continuously without short(value is 0), then the resistor is normal
- 3) Set the multi meter to resistance mode, confirm that the resistance value of the resistor is around 270 kOhm



Check and replace inferior components

Caution

In case that the control box is opened and before checking electrical parts, it should be checked that the LED 01Y turned off (wait 3 minutes after main power OFF), otherwise it may cause electrical shock.

Parts	Phenomena	Cause	Check and Countermeasures
Compres sor	No operation	Destruction of motor insulation	Measure resistor between compressor power terminal and sash
	Stop during operation	Destruction of motor insulation	Measure resistor between compressor power terminal and sash
	Loud noise during operation	Connection wire	Check power wiring of the compressor power.
Outdoor fan	High pressure error during cold operation	Failure of fan motor. Failure of air flow around outdoor heat exchanger.	Check that the fan rotates when turning the outdoor unit on after turning it off. Remove obstacles around the outdoor unit.
Outdoor LEV	No heating condition. Frequent defrost operation.	Poor wire contact	Check wire connectors.
	No operation sound even after powering on	Poor coil	Check resistance between terminals. Check the LEV.
	No heating condition. Failure of outdoor heat exchanger.	LEV clogged	Replace the LEV.
	Low pressure error or discharge error	LEV clogged	Replace the LEV.

If the system failed, error code is displayed on 7 segments LED of the wired remote control and the outdoor unit control board.

# 3. Self-diagnosis function

# Self-Diagnosis Function

#### **Error Indicator**

- This function indicates types of failure in self-diagnosis and occurrence of failure for air condition.
- Error mark is displayed on display window of Indoor Units and wired remote controller, and 7-segment LED of Outdoor Unit control board as shown in the table.
- If more than two troubles occur simultaneously, lower number of error code is first displayed.
- After error occurrence, if error is released, error LED is also released simultaneously.

	Display		Title	Cause of Error
	0	1	Indoor Unit air sensor	Indoor Unit air sensor open or short
	0	2	Indoor Unit sensor(inlet pipe)	Indoor Unit inlet pipe sensor open or short
error	0	3	Wired remote control ↔ Indoor Unit transmission	In the case that Indoor Unit can not receive any signal from wired remote control successively for 3 minutes
ped 6	0	4	Drain pump	Malfunction of drain pump
Indoor Unit related error	0	5	Outdoor unit ↔ Indoor Unit transmission	In the case that Indoor Unit can not receive any signal from Outdoor Unit successively for 3 minutes
ı.	0	6	Indoor Unit outlet pipe sensor	Indoor Unit outlet pipe sensor open or short
oopul	0	7	The other operation mode	In the case that an Indoor Unit is operated the other operation mode different from the operated Indoor Unit
	0	8	Not in use	Not in use
	0	9	Serial No. Error	In the case that the serial number marked on EEPROM of Indoor Unit is 0 or FFFFFF
	2	1	DC peak	IPM over temperature or compressor malfunction
d error	2	2	Excess of limited current of Main Outdoor Unit INV compressor	When current detection is over the maximum current limit
Power related error	2	3	Poor voltage charge for driving INV compressor	DC charging is not performed after starting relay turn on
ower	2	4	High Pressure Switch of Main Outdoor Unit	Suspension of compressor by the Main Outdoor Unit High Pressure switch
	2	5	Low/Over voltage	Input voltage is out of tolerance of rating voltage
	3	1	Not in use	Not in use
d error	3 2 Dischar Outdoo	Discharge temperature of Main Outdoor Unit (INV compressor)	Due to over rising of INV compressor discharge temperature, Compressor off is occurred 3 times in 1 hour	
Compressor related error	3	3	Discharge temperature of Main Outdoor Unit (constant speed compressor)	Due to over rising of constant speed compressor discharge temperature, Compressor off is occurred 3times in an hour
npress	3	4	High pressure of Main Outdoor Unit	Compressor Off by excessive increase of Main Outdoor Unit High Pressure
Con	3	5	Low pressure of Main Outdoor Unit	Compressor Off by excessive reduction of Main Outdoor Unit Low Pressure

	Display		Title	Cause of Error
	4	0	Current detect a(CT) sensor of Main Outdoor Unit Inverter compressor	Current detect (CT) sensor of Main Outdoor Unit Inverter compressor open or short
	4	1	Discharge temperature sensor of Main Outdoor Unit Inverter compressor	Open or short of discharge temperature sensor of Main Outdoor Unit Inverter compressor
ō	4	2	Outdoor Low Pressure sensor of Main Outdoor Unit	Open or short of Outdoor Low Pressure sensor of Main Outdoor Unit
ted err	4	3	Outdoor High Pressure sensor of Main Outdoor Unit	Open or short of Outdoor High Pressure sensor of Main Outdoor Unit
it relat	4	4	Outdoor air sensor of Main Outdoor Unit	Open or short of Outdoor air sensor of Main Outdoor Unit
Outdoor unit related error	4	5	Heat exchanger sensor of Main Outdoor Unit (front side)	Open or short of heat exchanger sensor of Main Outdoor Unit (front side)
Outde	4	6	Suction temperature sensor of Main Outdoor Unit	Open or short of Suction temperature sensor of Main Outdoor Unit
	4	7	Discharge temperature sensor of the constant speed compressor of Main Outdoor Unit	Open or short of discharge temperature sensor of the constant speed compressor of Main Outdoor Unit
	4	8	Heat exchanger sensor of Main Outdoor Unit (rear side)	Open or short Heat exchanger sensor of Main Outdoor Unit (rear side)
error	5	1	Connection of excessive capacity (excessive Indoor Unit capacity)	The displayed number of Indoor Units being connected is over rated capacity of Outdoor Unit
lated 6	5	2	IMV control part → Main Outdoor Unit control part	Failing to receive signal of the Main Outdoor Unit control part from the INV control part
sion re	5	3	Indoor Unit → Main Outdoor Unit control part	Failing to receive signal of the Main Outdoor Unit control part from the Indoor Unit control part
Transmission related error	5	4	Reverse connection of the R,S,T power line of Main Outdoor Unit	Misconnection or disconnection of R,S,T power line of Main Outdoor Unit
Trai	5	7	Transmission related error (Main control part → INV control part)	Failing to receive signal of the INV control part from the Main control part
Outdoor Unit related error	6	2	Excessive temperature of INV control part radiation panel	Excessive temperature of INV control part radiation panel
Outdo	6	5	Fan temperature sensor	Open or short of fan temperature sensor

	D	ispl	ay	Title	Cause of Error
error	1	0	0	Discharge temperature of Main Outdoor constant speed compressor 1 of Sub1 Outdoor Unit	Compressor Off by excessive increase of discharge temperature of constant speed compressor1 of the Sub1 Outdoor Unit
related	1	0	1	Discharge temperature of Main Outdoor constant speed compressor 2 of Sub1 Outdoor Unit	Compressor Off by excessive increase of discharge temperature of constant speed compressor1 of the Sub2 Outdoor Unit
Compressor	1	0	2	Discharge temperature of Main Outdoor constant speed compressor 1 of Sub2 Outdoor Unit (3 units)	Compressor Off by excessive increase of discharge temperature of constant speed compressor1 of the Sub2 Outdoor Unit (3 units)
Com	1	0	3	Discharge temperature of Main Outdoor constant speed compressor 2 of Sub2 Outdoor Unit (3 units)	Compressor Off by excessive increase of discharge temperature of constant speed compressor2 of the Sub2 Outdoor Unit (3 units)
	1	0	4	Transmission related error between Outdoor Units (Sub1 Outdoor Unit → Main Outdoor Unit)	If failing to receive signal of the Sub1 Outdoor Unit from the Main Outdoor Unit control part
	1	0	5	Transmission related error Main Outdoor Unit fan driving (fan → Outdoor Unit)	If failing to receive signal of the fan driving control part from the Main Outdoor Unit control part
error	1	0	6	Occurrence of over-current at Main Outdoor Unit fan motor (IPM Fault)	Occurrence of over-current at Main Outdoor Unit fan motor (IPM Fault)
elated	1	0	7	Low Voltage of Main Outdoor Unit fan motor	Occurrence of Low Voltage of Main Outdoor Unit fan motor
Transmission related error	1	0	8	Transmission related error of Main Outdoor Unit fan motor (Outdoor Unit ➡ fan)	If failing to receive signal of the Main Outdoor Unit control part from the fan driving control part
ransn	1	0	9	High Pressure switch of Sub1 Outdoor Unit	Operation of High Pressure switch due to increase of Sub1 Outdoor Unit High Pressure increase
-	1	1	0	Reverse connection of the R, S, T Power line of Sub1 Outdoor Unit	Misconnection or disconnection of R, S, T Power line of Sub1 Outdoor Unit
	1	1	1	Transmission related error between Outdoor Units (Main Outdoor Unit ➡ Sub1 Outdoor Unit)	If failing to receive signal of the Main Outdoor Unit control part from the Sub1 Outdoor Unit control part
	1	1	3	Main Outdoor Unit liquid pipe temperature sensor	Open or short of Main Outdoor Unit liquid pipe temperature sensor
	1	1	4	Main Outdoor Unit excessive cooling inlet temperature sensor	Open or short of Main Outdoor Unit excessive cooling inlet temperature sensor
error	1	1	5	Main Outdoor Unit excessive cooling outlet temperature sensor	Open or short of Main Outdoor Unit excessive cooling outlet temperature sensor
lated	1	1	6	Sub1 Outdoor Unit High Pressure sensor	Open or short of Sub1 Outdoor Unit High Pressure sensor
nit re	1	1	7	Sub1 Outdoor Unit Low Pressure sensor	Open or short of Sub1 Outdoor Unit Low Pressure sensor
Outdoor Unit related error	1	1	8	Sub1 Outdoor Unit air temperature sensor	Open or short of Sub1 Outdoor Unit air temperature sensor
Outo	1	2	0	Sub1 Outdoor Unit suction temperature sensor	Open or short of Sub1 Outdoor Unit suction temperature sensor
	1	2	1	Sub1 Outdoor Unit constant speed compressor1 discharge temperature sensor	Open or short of Sub1 Outdoor Unit constant speed compressor1 discharge temperature sensor

	D	ispla	ay	Title	Cause of Error
ror	1	2	2	Sub1 Outdoor Unit constant speed compressor2 discharge temperature sensor	Open or short of Sub1 Outdoor Unit constant speed compressor2 discharge temperature sensor
Outdoor Unit related error	1	2	3	Sub1 Outdoor Unit heat exchanger sensor (front side)	Open or short of heat exchanger sensor of Sub1 Outdoor Unit (front side)
it rela	1	2	4	Sub1 Outdoor Unit heat exchanger sensor (rear side)	Open or short of heat exchanger sensor of Sub1 Outdoor Unit (rear side)
or Un	1	2	5	Sub1 Outdoor Unit liquid pipe temperature sensor	Open or short of Sub1 Outdoor Unit liquid pipe temperature sensor
Outdo	1	2	6	Sub1 Outdoor Unit excessive cooling inlet temperature sensor	Open or short of Sub1 Outdoor Unit excessive cooling inlet temperature sensor
	1	2	7	Sub1 Outdoor Unit excessive cooling outlet temperature sensor	Open or short of Sub1 Outdoor Unit excessive cooling outlet temperature sensor
	1	2	8	Sub2 Outdoor Unit High Pressure sensor (3Units)	Open or short of Sub2 Outdoor Unit High Pressure sensor (3Units)
	1	2	9	Sub2 Outdoor Unit Low Pressure sensor (3Units)	Open or short of Sub2 Outdoor Unit Low Pressure sensor (3Units)
	1	3	0	Sub2 Outdoor Unit air temperature sensor (3Units)	Open or short of Sub2 Outdoor Unit air temperature sensor (3Units)
	1	3	2	Sub2 Outdoor Unit suction temperature sensor (3Units)	Open or short of Sub2 Outdoor Unit suction temperature sensor (3Units)
	1	3	3	Sub2 Outdoor Unit constant speed compressor1 discharge temperature sensor (3Units)	Open or short of Sub2 Outdoor Unit constant speed compressor1 discharge temperature sensor (3Units)
	1 3	4	Sub2 Outdoor Unit constant speed compressor2 discharge temperature sensor (3Units)	Open or short of Sub2 Outdoor Unit constant speed compressor2 discharge temperature sensor (3Units)	
	1	3	5	Sub2 Outdoor Unit heat exchanger temperature sensor (front side) (3Units)	Open or short of Sub2 Outdoor Unit heat exchanger temperature sensor(front side) (3Units)
	1	3	6	Sub2 Outdoor Unit heat exchanger temperature sensor (rear side) (3Units)	Open or short of Sub2 Outdoor Unit heat exchanger temperature sensor(rear side) (3Units)
	1	3	7	Sub2 Outdoor Unit liquid pipe temperature sensor (3Units)	Open or short of Sub2 Outdoor Unit liquid pipe temperature sensor (3units)
	1	3	8	Sub2 Outdoor Unit excessive cooling inlet temperature sensor (3Units)	Open or short of Sub2 Outdoor Unit excessive cooling inlet temperature sensor (3units)
	1	3	9	Sub2 Outdoor Unit excessive cooling outlet temperature sensor (3Units)	Open or short of Sub2 Outdoor Unit excessive cooling outlet temperature sensor (3units)
	1	4	0	Sub2 Outdoor Unit High Pressure sensor (3Units)	Open or short of Sub2 Outdoor Unit High Pressure sensor (3units)
	1	4	1	Reverse connection of the R, S, T Power line of Sub2 Outdoor Unit	Misconnection or disconnection of R, S, T Power line of Sub2 Outdoor Unit
	1	4	2	Transmission related error between Outdoor Units (Main Outdoor Unit → Sub2 Outdoor Unit) (3Units)	If failing to receive signal of the central control part from the main control part
	1	4	3	High Pressure of Sub1 Outdoor Unit	Compressor Off by excessive increase of Sub1 Outdoor Unit High Pressure

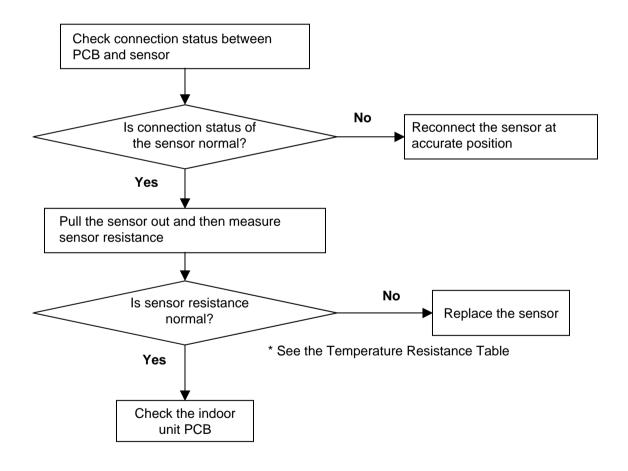
	Display		ay	Title	Cause of Error
	1	4	4	Low Pressure of Sub1 Outdoor Unit	Compressor Off by excessive reduction of Sub2 Outdoor Unit Low Pressure
error	1	4	5	High Pressure of Sub2 Outdoor Unit (3Units)	Compressor Off by excessive increase of Sub2 Outdoor Unit High Pressure
related	1	4	6	Low Pressure of Sub2 Outdoor Unit (3Units)	Compressor Off by excessive reduction of Sub2 Outdoor Unit Low Pressure
Unit	1 4 7 Short voltage/excess voltage of Sub1 Outdoor Unit	Input voltage of Sub1 Outdoor Unit is more than 487V or less than 270V			
Outdoor		Open or short of outdoor voltage sensor of Sub1 Outdoor Unit			
O	1	4	9	Short voltage/excess voltage of Sub2 Outdoor Unit (3Units)	Input voltage of Sub2 Outdoor Unit is more than 487V or less than 270V
	1	5	0	Voltage sensor of Sub2 Outdoor Unit (3Units)	Open or short of outdoor voltage sensor of Sub2 Outdoor Unit
	1	5	1	Failure of operation mode conversion	Pressure unbalance between Outdoor Units

#### ■ Please refer to trouble shooting guide in service manual for each error title

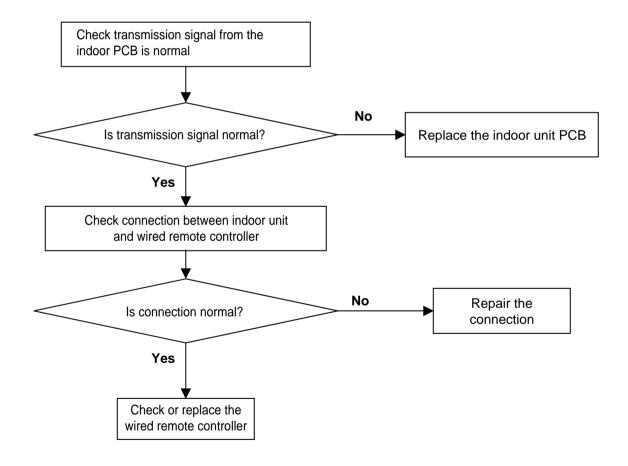


In case that the control box is opened and before checking electrical parts, it should be checked that the LED 01Y (Refer to next page) turned off (wait 3 minutes after main power OFF), otherwise, it may cause electrical shock.

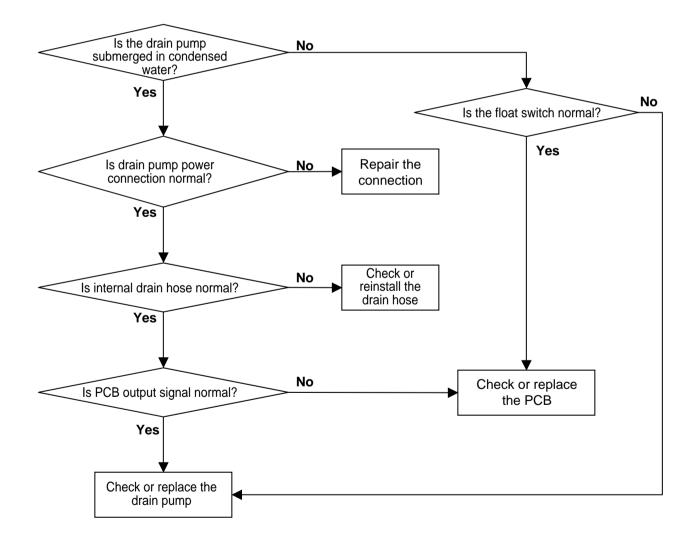
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause		
01	Air temperature sensor of the indoor unit	Short or open of	Poor sensor connection		
02	Inlet pipe temperature sensor of the indoor unit	indoor unit sensor	Short or open of sensor     Defective indoor PCB		
06	Outlet pipe temperature sensor of the indoor unit		2010031170 1110031 1 02		



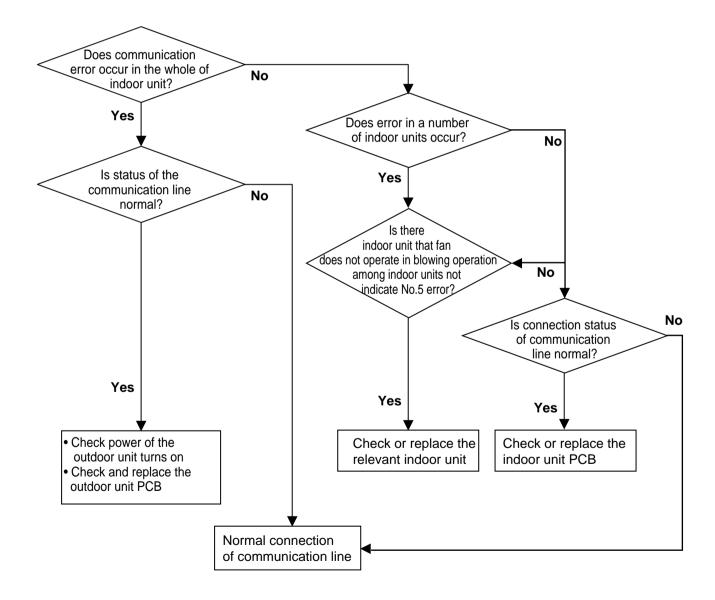
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
03	Communication error between wired remote controller and indoor unit	If failing to receive wired remote control signal at the indoor unit	Defective wired remote control     Defective indoor unit PCB     Poor connection, contact



Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
04	Drain pump error	The float switch opens since drain of condensed water is not done	<ul> <li>Malfunction of floater switch of the drain pump</li> <li>Malfunction of the drain pump</li> <li>Defective indoor unit PCB</li> </ul>

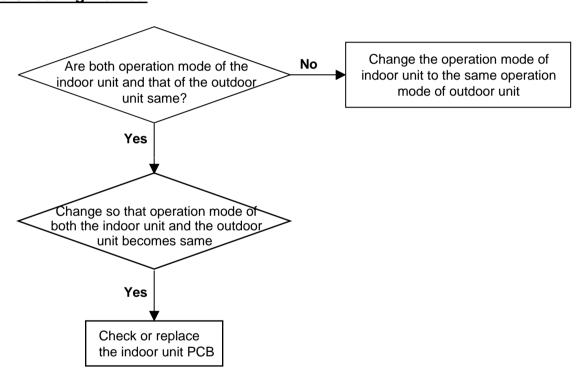


Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
05	Communication error between outdoor unit and indoor unit	If failing to receive outdoor unit signal at the indoor unit for consecutive 3 minutes	Where connection of communication line is not done     Where communication line is short     Failure of communication circuits of indoor unit     Failure of communication circuits of outdoor unit     Where distance between power line and communication line is not sufficient



Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
07	Different operation mode between indoor units	Where operating in different operation mode from previously operated indoor unit	This error occurs if an indoor unit which is off state is to operate in heating mode when one or more indoor units are operated in cooling mode and vice versa.

#### **Failure Checking Method**

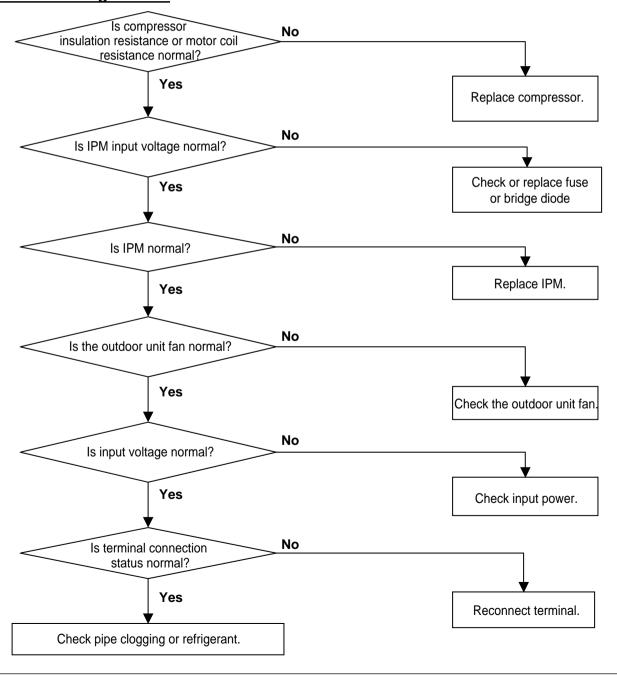


Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
09	Indoor unit EEPROM error	Problems occur at EEPROM within the indoor unit°Øs main PCB assembly	<ul> <li>Occurrence of poor communication between MICOM and EEPROM on the indoor unit main PCB assembly.</li> <li>Occurrence when no serial No. data exist within EEPROM.</li> </ul>

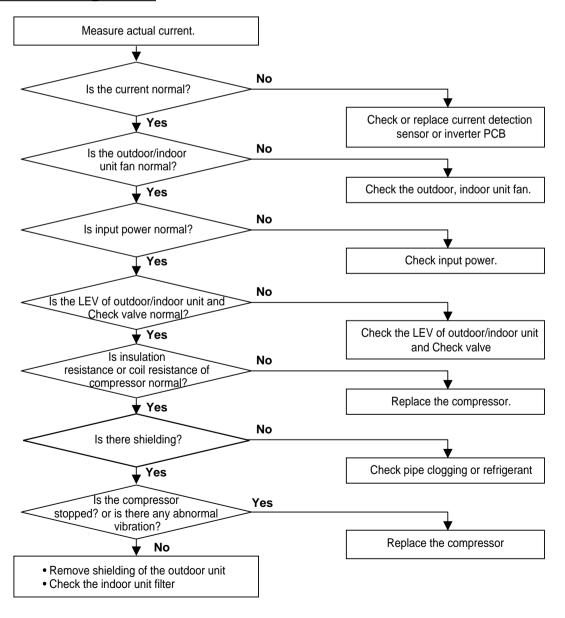
#### **Failure Checking Method**

Check and replace the indoor unit PCB.

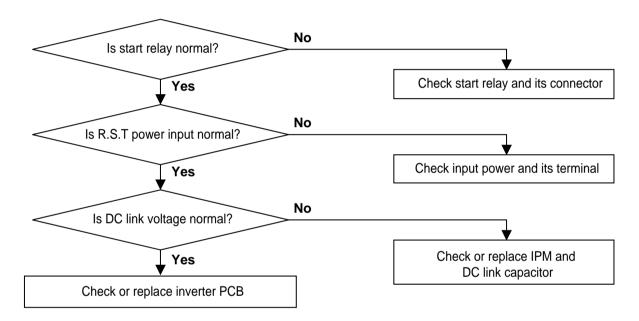
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
21	Occurrence of excessive current in inverter compressor	Poor inverter compressor, poor drive of inverter element (IPM)	Excessive current flows in compressor power supply (U, V, W)     Excessive heat of IPM     Excessive charge of refrigerant     Insulation breaking of compressor     Low input voltage     Pulled out or loose of inverter compressor terminal



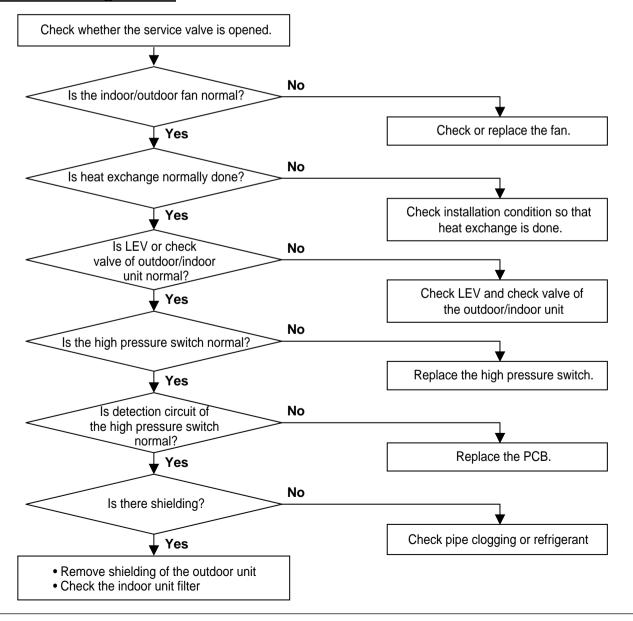
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
22	Maximum over current (MAX CT) or minimum current	Over current or minimum current flows	Pulled out or loose of inverter compressor terminal Defective compressor Clogging of pipe Defective current detection sensor Low/high input voltage Failure of outdoor/indoor fan Excessive charge of refrigerant Failure of outdoor/indoor LEV/Check Valve Shielded (Outdoor unit shielded on cooling mode/Indoor unit filter clogged on heating mode)



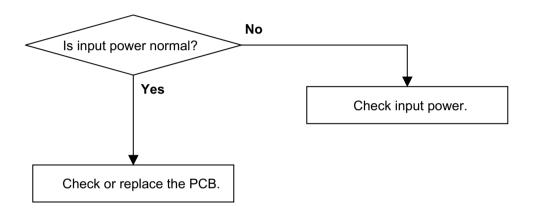
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
23	DC link voltage for inverter compressor drive	DC link voltage is not charged after relay on	<ul> <li>Loose DC link terminal</li> <li>Defective start relay</li> <li>Defective capacitor</li> <li>Abnormal power input</li> <li>Defective IPM</li> <li>Failure of voltage detection circuit</li> </ul>



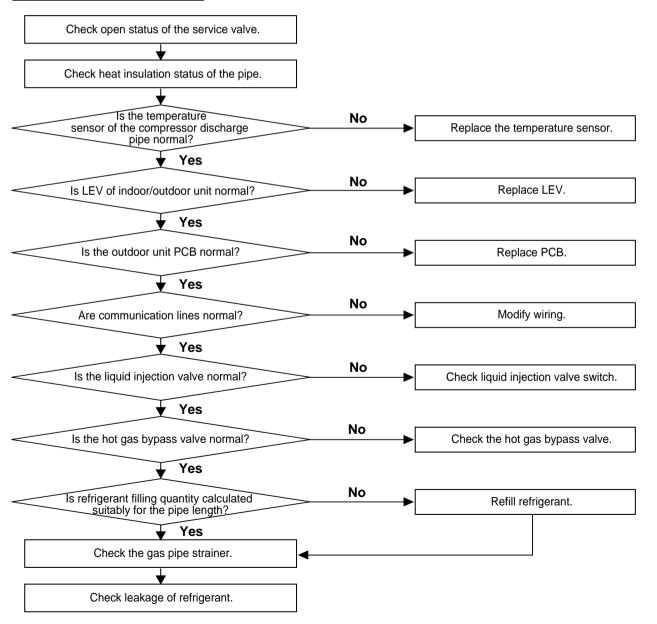
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
24 109 140	High pressure switch of outdoor unit	Compressor stops by high pressure switch of outdoor unit	<ul> <li>Failure of high pressure switch</li> <li>Check outdoor fan and shielding of heat exchanger on cooling mode</li> <li>Check indoor fan and shielding of heat exchanger on heating mode</li> <li>Clogging of compressor check valve</li> <li>Pipe size reduction by damage of refrigerant pipe</li> <li>Pulled out of indoor/outdoor LEV terminal</li> <li>Excessive filling of refrigerant</li> <li>Poor vacuum work</li> <li>Check communication lines of indoor units.</li> <li>Check LEV connection of indoor unit PCB.</li> </ul>



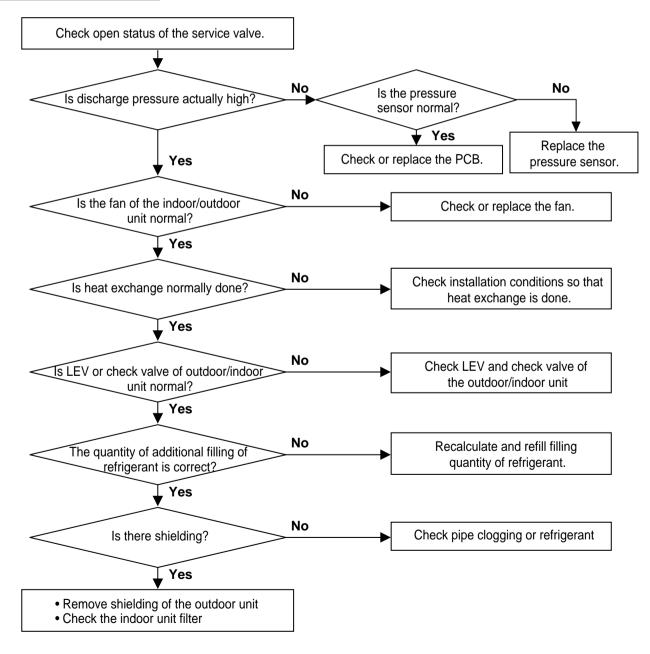
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
25 147 149	Low voltage/high voltage	Input voltage is More than 487V or less than 270V	Abnormal input power     Defective voltage detection circuit



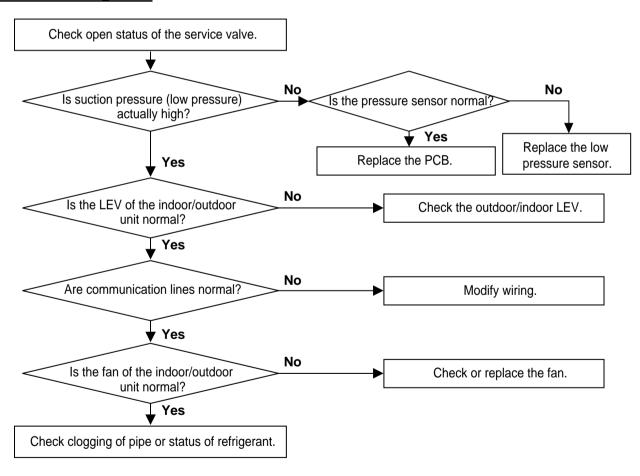
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
32 33 100 101 102 103	32: Discharge temperature of main outdoor unit inverter compressor  33: Discharge temperature of main outdoor unit constant speed compressor  100: Discharge temperature of Sub1 outdoor unit No.1 constant speed compressor  101: Discharge temperature of Sub1 outdoor unit No.2 constant speed compressor  102: Discharge temperature of Sub2 outdoor unit No.1 constant speed compressor  103: Discharge temperature of Sub2 outdoor unit No.2 constant speed compressor	Compressor stops by high discharge temperature of compressor	Defective temperature sensor of compressor discharge pipe     Insufficient refrigerant     Failure of LEV     Failure of liquid injection valve     Leakage of hot gas bypass valve     Insufficient open of liquid pipe service valve on heating mode     Poor heat insulation of pipe on heating mode



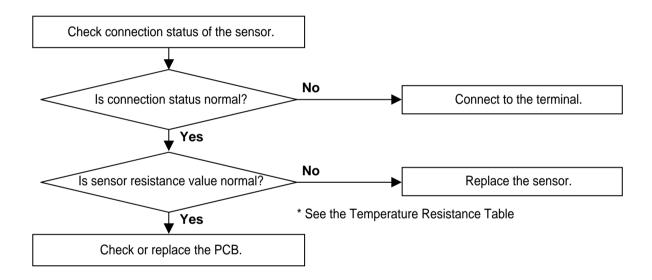
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
34 143 145	34: High pressure rise of main outdoor unit 143: High pressure rise of Sub1 outdoor unit 145: High pressure rise of Sub2 outdoor unit	Compressor stops by excessive rise of high pressure	<ul> <li>Failure of high pressure sensor or high pressure sensor detection circuit part</li> <li>Failure of indoor/outdoor unit fan</li> <li>Poor heat exchange by installation conditions, damage of heat exchanger</li> <li>Clogging of discharge pipe</li> <li>Excessive filling of refrigerant</li> </ul>



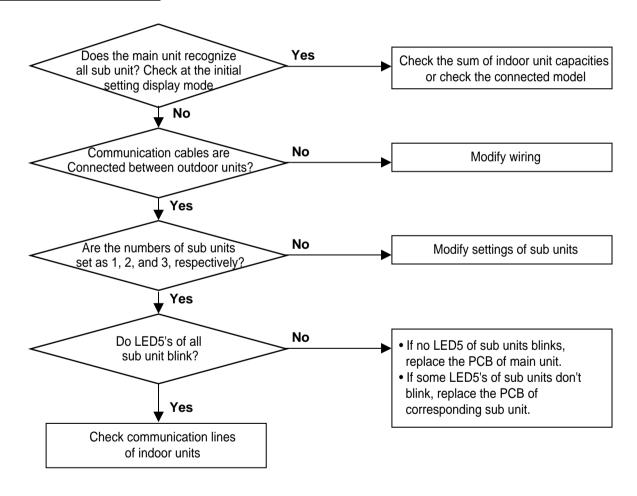
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
35 144 146	35: Low pressure drop of main outdoor unit 144: Low pressure drop of Sub1 outdoor unit 144: Low pressure drop of Sub2 outdoor unit	Compressor stops by excessive drop of low pressure	<ul> <li>Failure of low pressure sensor or low pressure sensor detection circuit part</li> <li>Clogging of service valve</li> <li>Insufficient refrigerant</li> <li>Leakage of refrigerant</li> <li>Poor indoor pipe temperature sensor</li> <li>Failure of indoor/outdoor unit fan</li> <li>Check communication lines of indoor units.</li> <li>Check LEV connection of indoor unit PCB.</li> </ul>



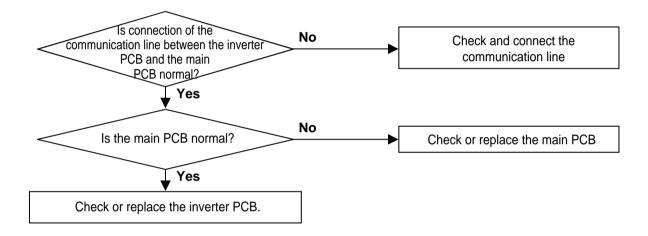
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
40, 41, 42, 43, 44, 45, 46, 47, 48, 65, 113, 114, 115, 116, 117, 118, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 132, 133, 134, 135, 136, 137, 138, 139, 148	Sensor error	Abnormal measuring value of sensor (Open/Short)	Defective temperature sensor (open/short)     Defective PCB.



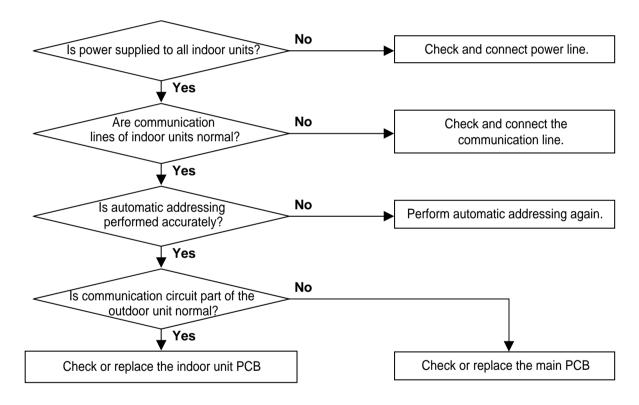
Error Display No	Error Item	Meaning	Major Error Occurrence Cause
51	Excessive capacity of indoor units	Excessive connection of indoor units compared to capacity of outdoor unit	<ul> <li>Excessive connection of indoor units compared to capacity of outdoor unit</li> <li>Wrong setting of sub unit</li> <li>Communication cables are not connected between outdoor units</li> <li>Poor communication between outdoor units</li> </ul>



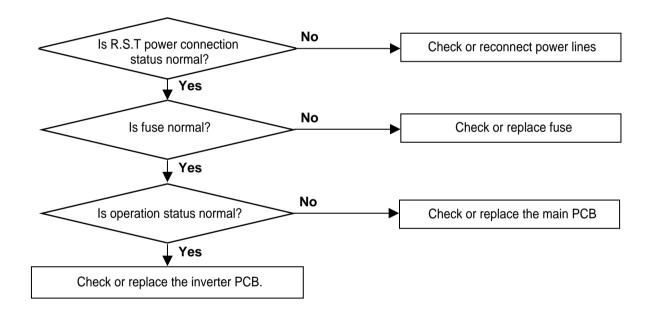
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
52	Communication error (inverter PCB - main PCB)	If failing to receive inverter signal at main PCB	<ul> <li>No connection of communication line</li> <li>Short or fusing of communication line</li> <li>Poor inverter PCB or main PCB</li> </ul>



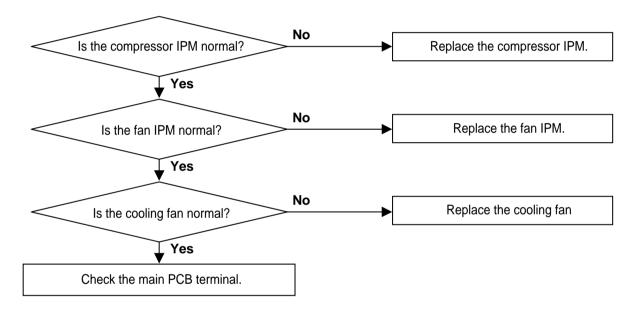
Error Display No. Error Item Meaning Major Error Oc	ccurrence Cause
Communication error (indoor unit - main PCB)  If failing to receive indoor unit signal at main PCB  • No connection of cor • Short or fusing of cor • Poor outdoor unit PC	mmunication line



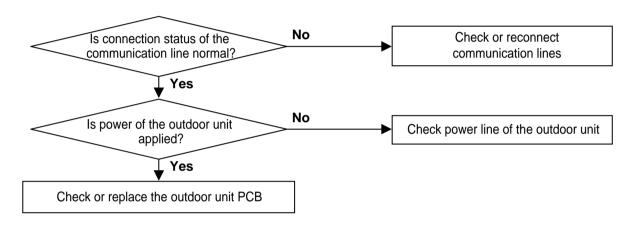
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
54 110 141	54: 3-phase wrong wiring of main outdoor unit 110: 3-phase wrong wiring of Sub1 outdoor unit 141: 3-phase wrong wiring of Sub2 outdoor unit	3-phase wrong wiring of outdoor unit (Reverse phase/omission of phase)	<ul> <li>Abnormal inverter PCB</li> <li>No connection of R, S, T power</li> <li>Changed R, S, T connection order</li> </ul>



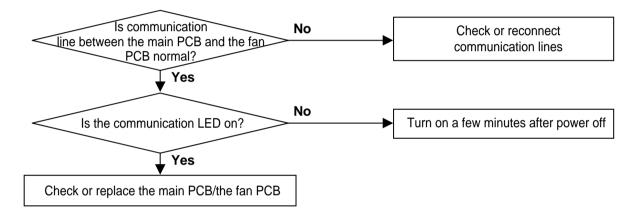
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
62	Heatsink of inverter compressor	Overheat of inverter heatsink	Overheat of IPM     Failure of cooling fan



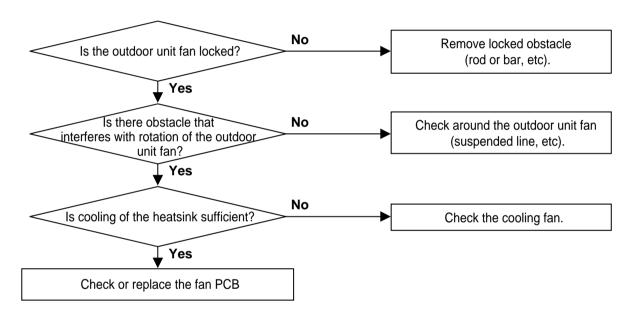
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
104 111 142	Communication error between outdoor units	Communication error between outdoor units (main outdoor unit - sub outdoor unit)	<ul> <li>No connection of communication line</li> <li>Short or fusing of communication line</li> <li>Poor outdoor unit PCB</li> <li>Power of outdoor unit is not applied</li> </ul>



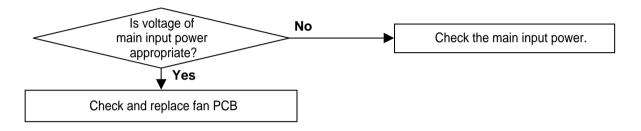
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
105 108	Communication error between main PCB and fan PCB	Communication error between main PCB and fan PCB	<ul> <li>No connection of communication line</li> <li>Short or fusing of communication line</li> <li>Poor outdoor unit PCB</li> <li>Power input when the DC link capacitor discharges</li> </ul>



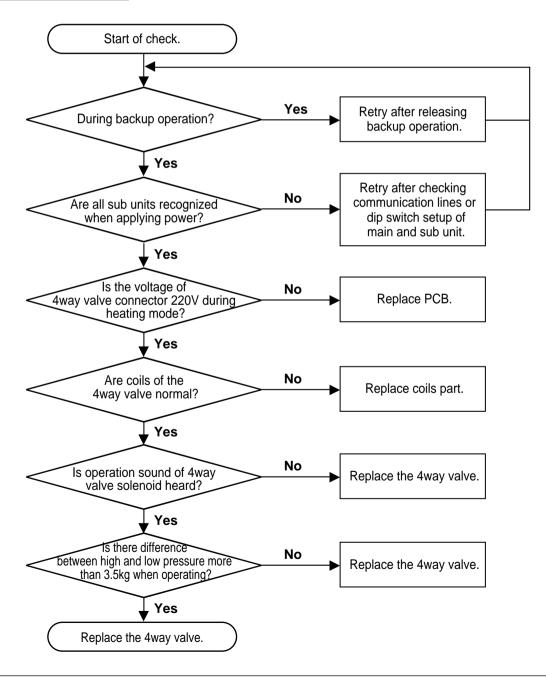
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
106	Over-current of outdoor unit fan motor (IPM fault)	Over-current of outdoor unit fan motor (IPM fault)	Fan lock     RPM down due to obstacle contact with outdoor unit fan     Overheat of heatsink



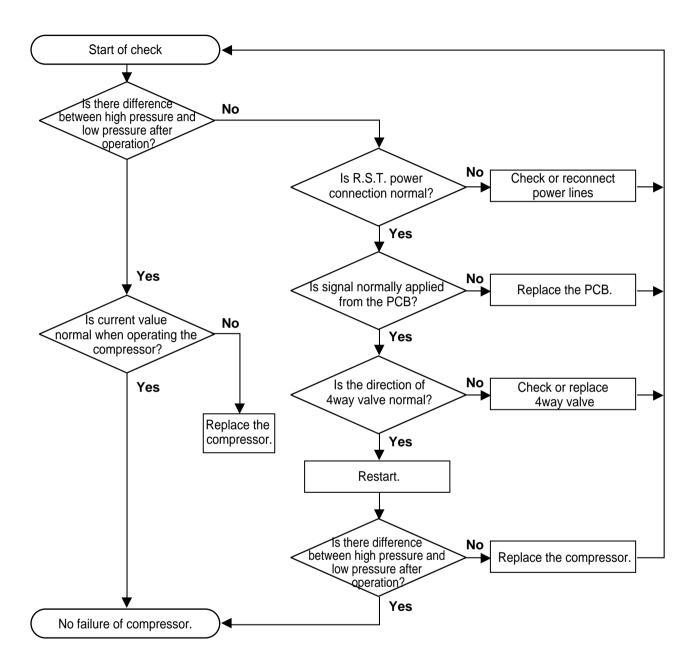
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
107	Low voltage of main outdoor unit fan motor	Low voltage of main outdoor unit fan motor	<ul> <li>Failure of capacitor for controlling fan</li> <li>Error of input power of fan PCB</li> <li>Failure of fan PCB</li> </ul>



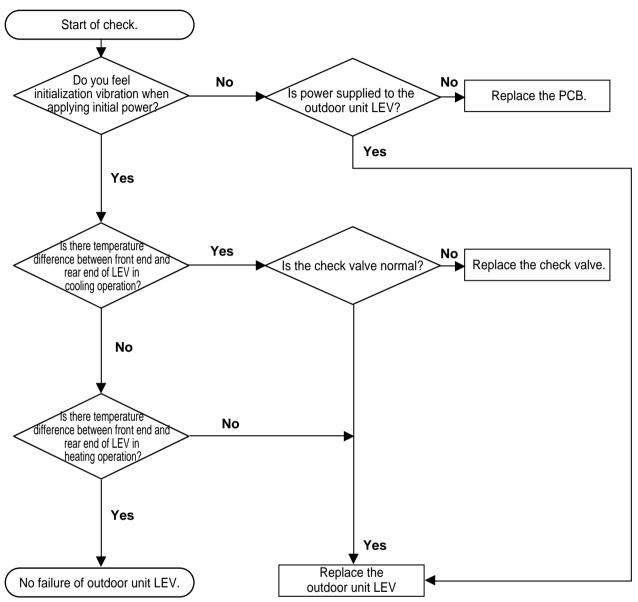
Error Display No.	Error Item	Meaning	Major Error Occurrence Cause
151	4way valve	Switch-over failure of 4way valve	<ul> <li>Locking of 4way valve by foreign material, aging, etc.</li> <li>Poor coils</li> <li>Applied voltage of PCB is poor.</li> </ul>



#### Compressor.

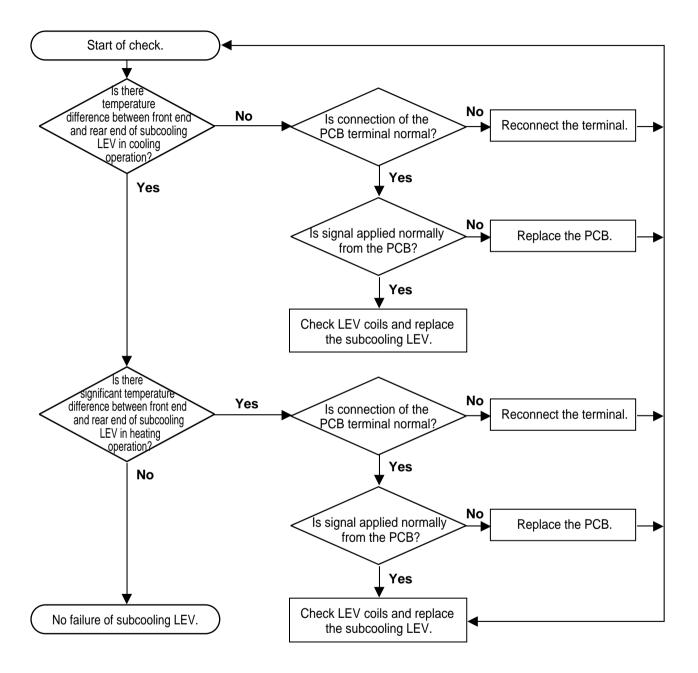


#### **Outdoor Unit LEV.**

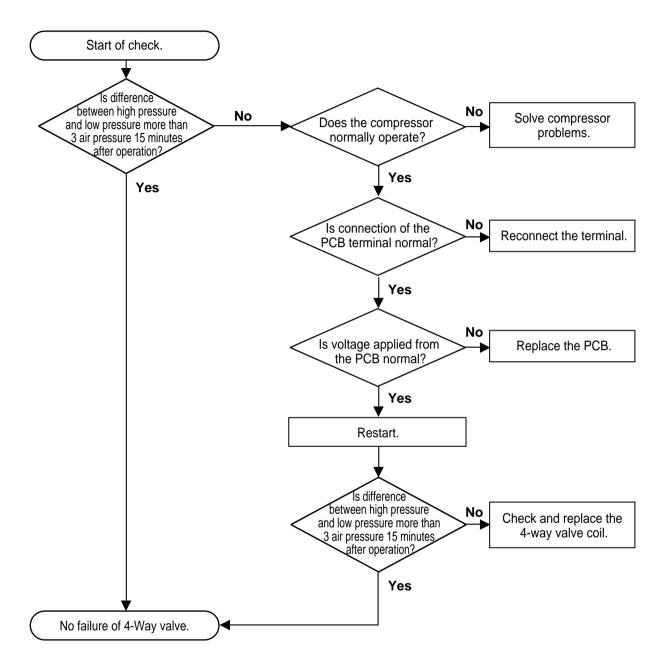


• It is difficult to separate coils and the main body for the outdoor unit LEV, and it is impossible to mount them again.

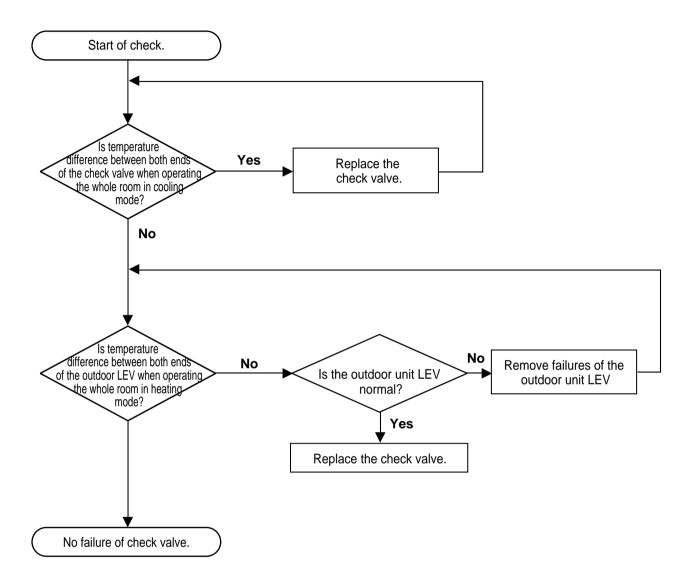
#### **Excessive Cold LEV.**



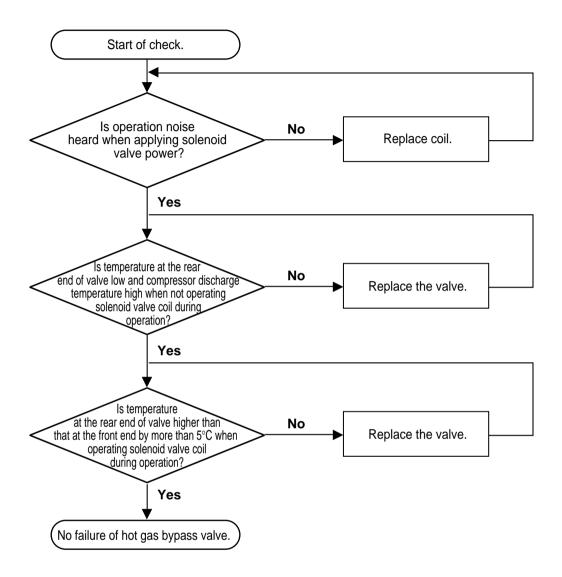
# 4-Way Valve



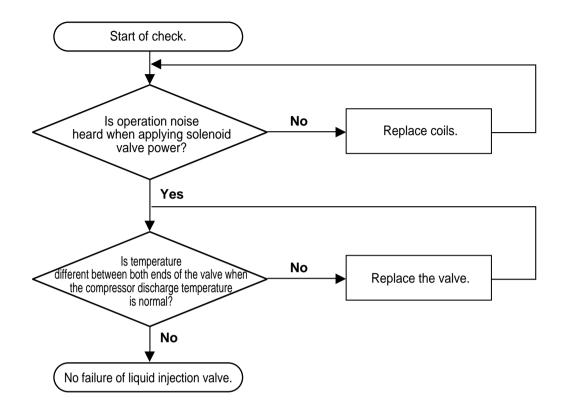
# Check Valve (Parallel connected check valve in outdoor unit)



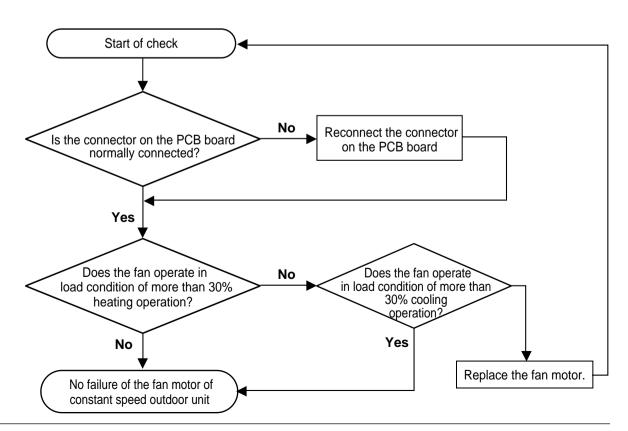
# Hot Gas Bypass Valve.



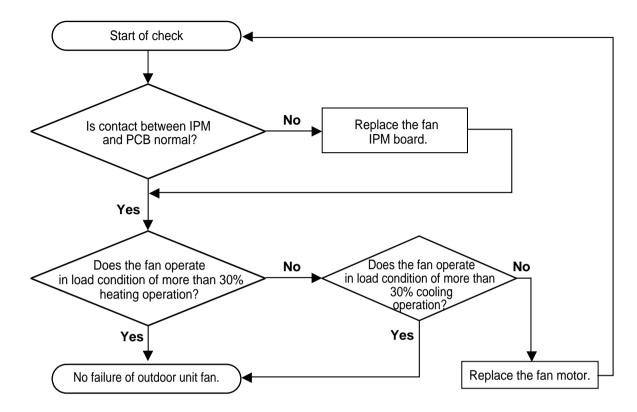
# Liquid Injection Valve.



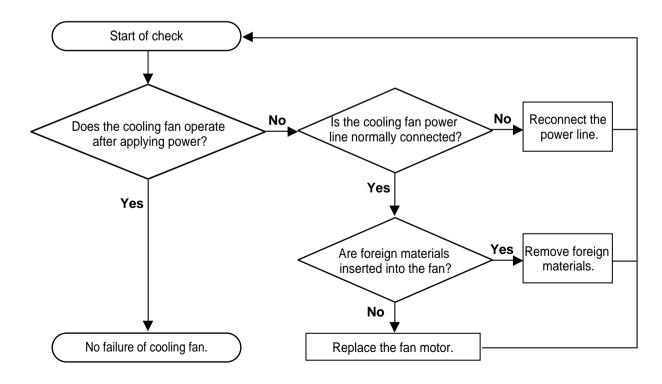
# **Constant Speed Outdoor Unit Fan**



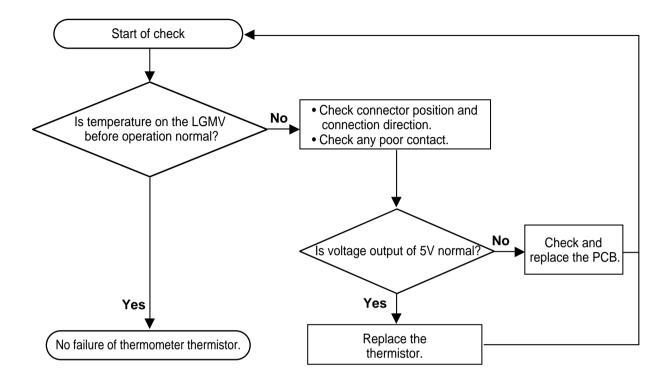
### **Inverter Outdoor Unit Fan.**



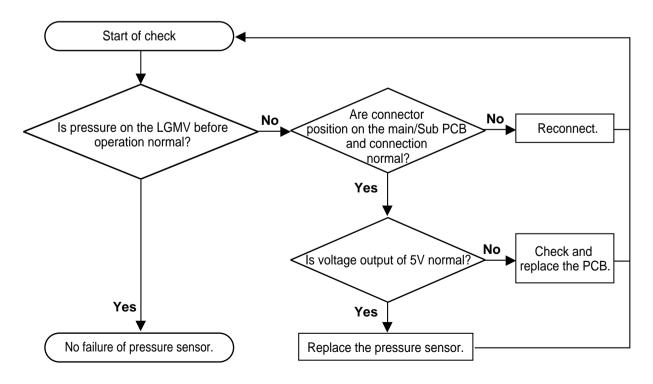
# Cooling Fan.



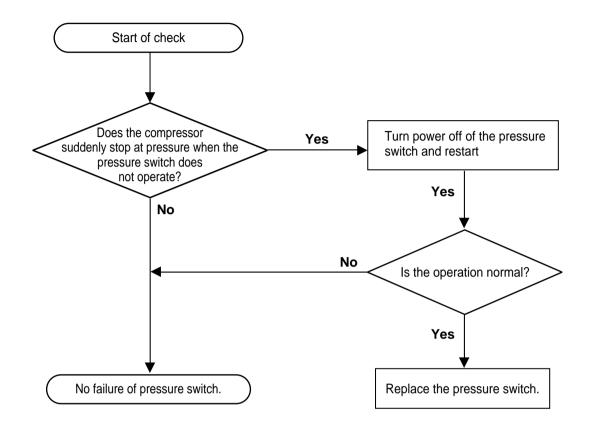
### Thermistor.



# **High/Low Pressure Sensor.**



### **Pressure Switch.**



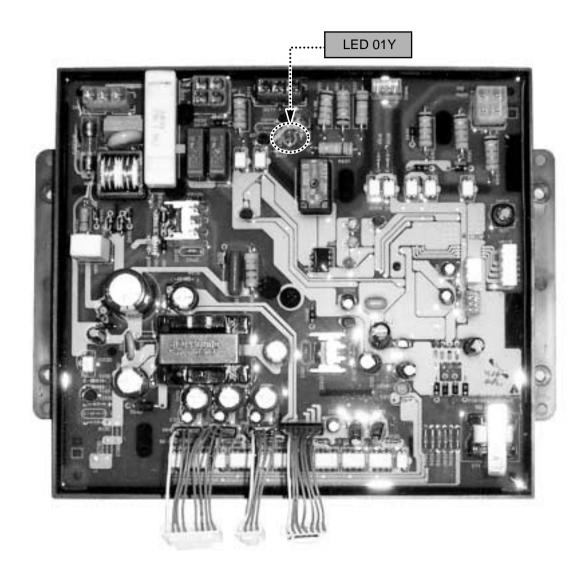
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**Caution:** If the system is operated for a long time with power off of the pressure switch, the pipe and parts of the system may be critically damaged.

# **Appendix**

# Position of the LED01Y in inverter board

# **CRUN10080T Inverter board**



# **Resistance-Temperature Table**

# **Thermistor: LNTA502HF**

Т	Rmin	Rcent	Rmax	DR	DT(°C)
-30	79.62	86.91	94.78	9.05%	1.42
-29	75.02	81.79	89.08	8.92%	1.41
-28 -27	70.71 66.67	77.00 72.51	83.76 78.79	8.79% 8.66%	1.40 1.39
-26	62.89	68.31	74.14	8.53%	1.38
-25	59.34	64.38	69.79	8.40%	1.37
-24	56.00	60.69	65.71	8.27%	1.36
-23	52.88	57.24	61.90	8.15%	1.35
-22	49.94	54.00	58.33	8.02%	1.33
-21	47.19	50.96	54.98	7.90%	1.32
-20	44.60	48.11	51.85	7.77%	1.31
-19	42.17	45.43	48.91	7.65%	1.30
-18 -17	39.88	42.92	46.15	7.53% 7.40%	1.29 1.28
-17	37.73 35.71	40.56 38.35	43.57 41.14	7.28%	1.26
-15	33.81	36.26	38.86	7.16%	1.25
-14	32.02	34.30	36.72	7.04%	1.24
-13	30.33	32.46	34.71	6.93%	1.23
-12	28.74	30.73	32.82	6.81%	1.22
-11	27.25	29.10	31.04	6.69%	1.20
-10	25.84	27.56	29.37	6.58%	1.19
-9	24.51	26.11	27.80	6.46%	1.18
-8	23.25	24.75	26.32	6.35%	1.16
-7	22.07	23.47	24.93	6.23% 6.12%	1.15
-6 -5	20.95 19.90	22.26 21.12	23.62 22.39	6.12%	1.14 1.13
-5 -4	18.91	20.04	21.22	5.90%	1.13
-3	17.97	19.02	20.13	5.79%	1.10
-2	17.08	18.07	19.09	5.68%	1.09
-1	16.24	17.16	18.12	5.57%	1.07
0	15.45	16.31	17.20	5.46%	1.06
1	14.70	15.50	16.33	5.36%	1.04
2	13.99	14.74	15.51	5.25%	1.03
3 4	13.32	14.02	14.74	5.15%	1.02
5	12.68	13.33 12.69	14.01 13.32	5.04% 4.94%	1.00
6	12.08 11.51	12.09	12.66	4.83%	0.99 0.97
7	10.97	11.50	12.05	4.73%	0.96
8	10.46	10.96	11.46	4.63%	0.95
9	9.978	10.44	10.91	4.53%	0.93
10	9.518	9.949	10.39	4.43%	0.92
Т	Rmin	Rcent	Rmax	DR	DT(°C)
11	9.083	9.484	9.895	4.33%	0.90
12	8.669	9.044	9.427	4.23%	0.89
13	8.277	8.627	8.983	4.13%	0.87
14	7.905	8.231	8.563	4.03%	0.86
15	7.551	7.856	8.165	3.93%	0.84
16	7.216	7.500	7.787	3.84%	0.83
17	6.897	7.161	7.430	3.74%	0.81
18	6.594	6.841	7.090	3.65%	0.80
19	6.306	6.536	6.768	3.55%	0.78
20 21	6.032 5.772	6.246 5.971	6.462 6.172	3.46% 3.37%	0.76 0.75
22	5.772	5.710	5.897	3.37%	0.75
23	5.288	5.710	5.635	3.27%	0.73
24	5.064	5.225	5.386	3.09%	0.70
25	4.850	5.000	5.150	3.00%	0.68
26	4.638	4.786	4.934	3.09%	0.71
27	4.437	4.583	4.728	3.18%	0.73
28	4.246	4.389	4.532	3.27%	0.76
29	4.064	4.204	4.345	3.36%	0.79
30	3.891	4.028	4.167	3.45%	0.81
31	3.726	3.861	3.997	3.53%	0.84
32	3.569	3.701	3.835	3.62%	0.86
33	3.419	3.549	3.681	3.71%	0.89
34	3.277	3.404	3.534	3.79%	0.92
35	3.141	3.266	3.393	3.88% 3.97%	0.94
36 37	3.012 2.888	3.134 3.008	3.258 3.130	4.05%	0.97 1.00
38	2.771	2.888	3.130	4.05%	1.00
39	2.659	2.773	2.890	4.22%	1.05
40	2.552	2.664	2.779	4.31%	1.08
	2.450	2.559	2.672	4.39%	1.10
41		2.459	2.569	4.47%	1.13
42	2.352		2.472	4.55%	1.16
	2.352	2.364			
42		2.364 2.273	2.378	4.64%	1.19
42 43 44 45	2.259	2.273 2.185	2.289	4.72%	1.22
42 43 44 45 46	2.259 2.170 2.085 2.004	2.273 2.185 2.102	2.289 2.203	4.72% 4.80%	1.22 1.25
42 43 44 45 46 47	2.259 2.170 2.085 2.004 1.926	2.273 2.185 2.102 2.022	2.289 2.203 2.121	4.72% 4.80% 4.88%	1.22 1.25 1.27
42 43 44 45 46 47 48	2.259 2.170 2.085 2.004 1.926 1.852	2.273 2.185 2.102 2.022 1.946	2.289 2.203 2.121 2.042	4.72% 4.80% 4.88% 4.96%	1.22 1.25 1.27 1.30
42 43 44 45 46 47	2.259 2.170 2.085 2.004 1.926	2.273 2.185 2.102 2.022	2.289 2.203 2.121	4.72% 4.80% 4.88%	1.22 1.25 1.27

T         Rmin         Rcent         Rmax         DR         DT(°C)           51         1.649         1.736         1.826         5.20%         1.39           52         1.587         1.610         1.697         5.36%         1.42           53         1.527         1.610         1.697         5.36%         1.45           54         1.470         1.552         1.636         5.44%         1.48           55         1.416         1.495         1.578         5.52%         1.51           56         1.364         1.441         1.522         5.59%         1.51           57         1.314         1.389         1.468         5.67%         1.57           58         1.266         1.340         1.417         5.75%         1.60           60         1.176         1.246         1.320         5.90%         1.66           61         1.174         1.294         1.98%         1.69           62         1.093         1.161         1.231         6.05%         1.72           63         1.054         1.120         1.189         6.13%         1.67           64         1.017         1.081						
51         1.649         1.736         1.826         5.20%         1.39           52         1.587         1.610         1.697         5.36%         1.45           53         1.527         1.610         1.697         5.36%         1.45           54         1.470         1.552         1.636         5.44%         1.48           55         1.416         1.495         1.578         5.52%         1.51           56         1.364         1.441         1.522         5.59%         1.54           57         1.314         1.389         1.468         5.67%         1.57           58         1.266         1.340         1.417         5.75%         1.60           69         1.220         1.292         1.367         5.83%         1.60           61         1.134         1.203         1.274         5.98%         1.60           61         1.134         1.203         1.274         5.98%         1.60           61         1.134         1.203         1.274         5.98%         1.62           63         1.054         1.120         1.189         6.13%         1.76           64         1.017	Т	Rmin	Rcent	Rmax	DR	DT(°C)
52						
53         1.527         1.610         1.697         5.36%         1.48           54         1.470         1.552         1.636         5.44%         1.48           55         1.416         1.495         1.578         5.52%         1.51           56         1.364         1.441         1.522         5.59%         1.57           57         1.314         1.339         1.468         5.67%         1.57           58         1.266         1.340         1.417         5.75%         1.60           59         1.220         1.292         1.367         5.83%         1.63           60         1.174         1.203         5.90%         1.66           61         1.134         1.203         1.274         5.98%         1.69           62         1.093         1.611         1.231         6.05%         1.72           63         1.054         1.120         1.189         6.13%         1.76           64         1.017         1.081         1.148         6.20%         1.72           65         0.9815         1.044         1.110         6.28%         1.82           66         0.9472         1.008						
54         1.470         1.552         1.636         5.44%         1.48           55         1.364         1.441         1.522         5.59%         1.54           57         1.314         1.389         1.468         5.67%         1.57           58         1.266         1.340         1.417         5.75%         1.60           59         1.220         1.292         1.367         5.83%         1.63           60         1.176         1.246         1.320         5.90%         1.66           61         1.134         1.203         1.274         5.98%         1.69           62         1.093         1.161         1.231         6.05%         1.72           63         1.054         1.120         1.189         6.13%         1.76           64         1.017         1.081         1.148         6.20%         1.79           65         0.9815         1.004         1.110         6.28%         1.82           66         0.9472         1.008         1.072         6.35%         1.85           67         0.9143         0.9739         1.037         6.43%         1.81           68         0.8823 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
55         1.416         1.495         1.578         5.52%         1.51           56         1.364         1.441         1.522         5.59%         1.54           57         1.314         1.389         1.468         5.67%         1.57           58         1.266         1.340         1.417         5.75%         1.60           69         1.176         1.246         1.320         5.90%         1.66           61         1.134         1.203         1.274         5.98%         1.69           62         1.093         1.161         1.231         6.05%         1.72           63         1.054         1.120         1.189         6.13%         1.76           64         1.017         1.081         1.148         6.20%         1.79           65         0.9815         1.044         1.110         6.28%         1.82           66         0.9472         1.008         1.1448         6.20%         1.79           65         0.9815         1.044         1.110         6.28%         1.82           66         0.9472         1.008         1.072         6.35%         1.85           67         0.9172 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
56						
57         1,314         1,389         1,468         5,67%         1,57           58         1,266         1,340         1,417         5,75%         1,60           59         1,220         1,292         1,367         5,83%         1,63           60         1,176         1,246         1,320         5,90%         1,66           61         1,134         1,203         1,274         5,98%         1,69           62         1,093         1,161         1,231         6,05%         1,72           63         1,054         1,120         1,189         6,13%         1,76           64         1,017         1,081         1,148         6,20%         1,79           65         0,9815         1,044         1,110         6,28%         1,82           66         0,9472         1,008         1,072         6,35%         1,85           67         0,9143         0,9739         1,037         6,43%         1,88           68         0,8827         0,9409         1,002         6,50%         1,91           69         0,8523         0,9092         0,9689         6,57%         1,95           70         0,823						
58         1.266         1.340         1.417         5.75%         1.60           59         1.220         1.292         1.367         5.83%         1.63           60         1.176         1.246         1.320         5.90%         1.66           61         1.134         1.203         1.274         5.98%         1.69           62         1.093         1.161         1.231         6.05%         1.72           63         1.054         1.120         1.189         6.13%         1.76           64         1.017         1.081         1.148         6.20%         1.79           65         0.9815         1.044         1.110         6.28%         1.82           66         0.9472         1.008         1.072         6.35%         1.85           67         0.9143         0.9739         1.037         6.43%         1.88           68         0.8827         0.99409         1.002         6.50%         1.91           69         0.8523         0.9092         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.44%         1.98           71         0						
59         1.220         1.292         1.367         5.83%         1.63           60         1.176         1.246         1.320         5.90%         1.66           61         1.134         1.203         1.274         5.98%         1.69           62         1.093         1.161         1.231         6.05%         1.72           63         1.054         1.120         1.189         6.13%         1.76           64         1.017         1.081         1.148         6.20%         1.79           65         0.9815         1.044         1.110         6.28%         1.82           66         0.9472         1.008         1.072         6.35%         1.85           67         0.9143         0.9739         1.037         6.43%         1.88           68         0.8827         0.9409         1.002         6.50%         1.91           69         0.8523         0.9092         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8483         0.9064         6.72%         2.01           72 <td< td=""><td>57</td><td>1.314</td><td>1.389</td><td>1.468</td><td>5.67%</td><td>1.57</td></td<>	57	1.314	1.389	1.468	5.67%	1.57
60	58	1.266	1.340	1.417	5.75%	1.60
61 1.134 1.203 1.274 5.98% 1.69 62 1.093 1.161 1.231 6.05% 1.72 63 1.054 1.120 1.189 6.13% 1.76 64 1.017 1.081 1.148 6.20% 1.79 65 0.9815 1.044 1.110 6.28% 1.82 66 0.9472 1.008 1.072 6.35% 1.85 67 0.9143 0.9739 1.037 6.43% 1.88 68 0.8827 0.9409 1.002 6.50% 1.91 69 0.8523 0.9902 0.9689 6.57% 1.95 70 0.8232 0.8787 0.9370 6.64% 1.98 71 0.7951 0.8493 0.9064 6.72% 2.01 72 0.7682 0.8211 0.8768 6.79% 2.04 73 0.7423 0.7940 0.8484 6.86% 2.08 74 0.7174 0.7678 0.8211 6.33% 2.11 75 0.6935 0.7427 0.7947 7.00% 2.14 76 0.6704 0.7185 0.7693 7.07% 2.18 77 0.6483 0.6952 0.7449 7.15% 2.21 78 0.6270 0.6728 0.7214 7.22% 2.25 79 0.6064 0.6512 0.6987 7.29% 2.28 80 0.5867 0.6304 0.6768 7.29% 2.35 81 0.55677 0.6104 0.6557 7.42% 2.35 82 0.5494 0.5911 0.6353 7.49% 2.35 83 0.5317 0.5724 0.6157 7.56% 2.42 84 0.5147 0.5545 0.5968 7.63% 2.49 86 0.4826 0.5205 0.5610 7.77% 2.52 87 0.4883 0.5317 0.5724 0.6157 7.56% 2.42 84 0.5147 0.5545 0.5968 7.63% 2.45 85 0.4983 0.5372 0.5786 7.70% 2.49 86 0.4826 0.5205 0.5610 7.77% 2.59 87 0.4889 0.5327 0.4899 0.5275 7.99% 2.28 88 0.5317 0.5724 0.6157 7.56% 2.42 84 0.5147 0.5545 0.5968 7.63% 2.45 85 0.4983 0.5372 0.5786 7.70% 2.49 86 0.4826 0.5205 0.5610 7.77% 2.59 87 0.4889 0.5327 0.4899 0.5275 7.99% 2.59 89 0.4386 0.4739 0.5117 7.97% 2.63 80 0.4826 0.5205 0.5610 7.77% 2.52 87 0.4899 0.4899 0.5275 7.99% 2.59 89 0.4386 0.4739 0.5117 7.97% 2.63 80 0.5867 0.6304 0.6464 8.10% 2.70 92 0.3991 0.4321 0.4674 8.17% 2.77 93 0.3868 0.4739 0.5117 7.97% 2.63 90 0.4249 0.4595 0.4964 8.04% 2.67  T Rmin Rcent Rmax DR DT(°C) 91 0.4118 0.4455 0.4816 8.10% 2.77 93 0.3868 0.491 0.4536 8.24% 2.77 94 0.3750 0.4065 0.4402 8.36% 3.00 100 0.3121 0.3396 0.3604 0.6948 8.89% 3.15 101 0.4118 0.4455 0.4816 8.10% 2.70 92 0.3991 0.4321 0.4674 8.17% 2.74 93 0.3868 0.4739 0.5117 7.97% 2.63 99 0.3217 0.3498 0.3809 8.63% 3.00 100 0.3229 0.3297 0.3586 8.76% 3.00 100 0.3229 0.3297 0.3586 8.76% 3.00 100 0.3229 0.3297 0.3586 8.76% 3.00 100 0.3229 0.3297 0.3586 8.76% 3.00 100 0.3244 0.2769 0.3019 0.3290 8.95% 3.19 105 0.2688 0.2933 0.3197 9.01% 3.	59	1.220	1.292	1.367	5.83%	1.63
61 1.134 1.203 1.274 5.98% 1.69 62 1.093 1.161 1.231 6.05% 1.72 63 1.054 1.120 1.189 6.13% 1.76 64 1.017 1.081 1.148 6.20% 1.79 65 0.9815 1.044 1.110 6.28% 1.82 66 0.9472 1.008 1.072 6.35% 1.85 67 0.9143 0.9739 1.037 6.43% 1.88 68 0.8827 0.9409 1.002 6.50% 1.91 69 0.8523 0.9902 0.9689 6.57% 1.95 70 0.8232 0.8787 0.9370 6.64% 1.98 71 0.7951 0.8493 0.9064 6.72% 2.01 72 0.7682 0.8211 0.8768 6.79% 2.04 73 0.7423 0.7940 0.8484 6.86% 2.08 74 0.7174 0.7678 0.8211 6.33% 2.11 75 0.6935 0.7427 0.7947 7.00% 2.14 76 0.6704 0.7185 0.7693 7.07% 2.18 77 0.6483 0.6952 0.7449 7.15% 2.21 78 0.6270 0.6728 0.7214 7.22% 2.25 79 0.6064 0.6512 0.6987 7.29% 2.28 80 0.5867 0.6304 0.6768 7.29% 2.35 81 0.55677 0.6104 0.6557 7.42% 2.35 82 0.5494 0.5911 0.6353 7.49% 2.35 83 0.5317 0.5724 0.6157 7.56% 2.42 84 0.5147 0.5545 0.5968 7.63% 2.49 86 0.4826 0.5205 0.5610 7.77% 2.52 87 0.4883 0.5317 0.5724 0.6157 7.56% 2.42 84 0.5147 0.5545 0.5968 7.63% 2.45 85 0.4983 0.5372 0.5786 7.70% 2.49 86 0.4826 0.5205 0.5610 7.77% 2.59 87 0.4889 0.5327 0.4899 0.5275 7.99% 2.28 88 0.5317 0.5724 0.6157 7.56% 2.42 84 0.5147 0.5545 0.5968 7.63% 2.45 85 0.4983 0.5372 0.5786 7.70% 2.49 86 0.4826 0.5205 0.5610 7.77% 2.59 87 0.4889 0.5327 0.4899 0.5275 7.99% 2.59 89 0.4386 0.4739 0.5117 7.97% 2.63 80 0.4826 0.5205 0.5610 7.77% 2.52 87 0.4899 0.4899 0.5275 7.99% 2.59 89 0.4386 0.4739 0.5117 7.97% 2.63 80 0.5867 0.6304 0.6464 8.10% 2.70 92 0.3991 0.4321 0.4674 8.17% 2.77 93 0.3868 0.4739 0.5117 7.97% 2.63 90 0.4249 0.4595 0.4964 8.04% 2.67  T Rmin Rcent Rmax DR DT(°C) 91 0.4118 0.4455 0.4816 8.10% 2.77 93 0.3868 0.491 0.4536 8.24% 2.77 94 0.3750 0.4065 0.4402 8.36% 3.00 100 0.3121 0.3396 0.3604 0.6948 8.89% 3.15 101 0.4118 0.4455 0.4816 8.10% 2.70 92 0.3991 0.4321 0.4674 8.17% 2.74 93 0.3868 0.4739 0.5117 7.97% 2.63 99 0.3217 0.3498 0.3809 8.63% 3.00 100 0.3229 0.3297 0.3586 8.76% 3.00 100 0.3229 0.3297 0.3586 8.76% 3.00 100 0.3229 0.3297 0.3586 8.76% 3.00 100 0.3229 0.3297 0.3586 8.76% 3.00 100 0.3244 0.2769 0.3019 0.3290 8.95% 3.19 105 0.2688 0.2933 0.3197 9.01% 3.	60	1.176	1.246	1.320	5.90%	1.66
62         1.093         1.161         1.231         6.05%         1.72           63         1.054         1.120         1.189         6.13%         1.76           64         1.017         1.081         1.148         6.20%         1.79           65         0.9815         1.044         1.110         6.28%         1.82           66         0.9472         1.008         1.072         6.35%         1.85           67         0.9143         0.9739         1.037         6.43%         1.88           68         0.8827         0.9409         1.002         6.50%         1.91           69         0.8523         0.9092         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8493         0.9064         6.72%         2.01           72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.93%         2.11           75						
63         1.054         1.120         1.189         6.13%         1.76           64         1.017         1.081         1.148         6.20%         1.79           65         0.9815         1.044         1.110         6.28%         1.85           66         0.9472         1.008         1.072         6.35%         1.85           67         0.9143         0.9739         1.037         6.43%         1.88           68         0.8827         0.9409         1.002         6.50%         1.91           69         0.8523         0.9092         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8493         0.9064         6.72%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.33%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           75         0.6935         0.7427         0.7947         7.00%         2.18           77						
64         1.017         1.081         1.148         6.20%         1.79           65         0.9815         1.044         1.110         6.28%         1.82           66         0.9472         1.008         1.072         6.35%         1.85           67         0.9143         0.9739         1.037         6.43%         1.88           68         0.8827         0.9409         1.002         6.50%         1.91           69         0.8523         0.9092         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8493         0.9064         6.72%         2.01           72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.71747         0.7687         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.18           75         0.6935         0.7427         0.7947         7.00%         2.18           77<						
65         0.9815         1.044         1.110         6.28%         1.82           66         0.9472         1.008         1.072         6.35%         1.85           67         0.9143         0.9739         1.037         6.43%         1.88           68         0.8827         0.9409         1.002         6.50%         1.91           69         0.8523         0.902         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8493         0.9064         6.72%         2.01           72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79						
66         0.9472         1.008         1.072         6.35%         1.85           67         0.9143         0.9739         1.037         6.43%         1.88           68         0.8827         0.9409         1.002         6.50%         1.91           69         0.8523         0.9092         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8493         0.9064         6.72%         2.01           72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6927         0.6728         0.7214         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
67         0.9143         0.9739         1.037         6.43%         1.88           68         0.8827         0.9409         1.002         6.50%         1.91           69         0.8523         0.9092         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8493         0.9064         6.72%         2.04           72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           <						
68         0.8827         0.9409         1.002         6.50%         1.91           69         0.8523         0.9092         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8493         0.9064         6.72%         2.01           72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5494         0.5911         0.6353         7.42%         2.35						
69         0.8523         0.9092         0.9689         6.57%         1.95           70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8493         0.9064         6.72%         2.04           72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         1.05677         0.6104         0.6557         7.42%         2.35					6.43%	
70         0.8232         0.8787         0.9370         6.64%         1.98           71         0.7951         0.8493         0.9064         6.72%         2.01           72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6935         0.7427         0.7947         7.70%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.94%         2.38						
71         0.7951         0.8493         0.9064         6.72%         2.01           72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.33%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5567         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42	69					
72         0.7682         0.8211         0.8768         6.79%         2.04           73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45	70	0.8232	0.8787	0.9370		1.98
73         0.7423         0.7940         0.8484         6.86%         2.08           74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49	71	0.7951	0.8493	0.9064	6.72%	2.01
74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.45           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52	72	0.7682	0.8211	0.8768	6.79%	2.04
74         0.7174         0.7678         0.8211         6.93%         2.11           75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.45           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52	73	0.7423	0.7940	0.8484	6.86%	2.08
75         0.6935         0.7427         0.7947         7.00%         2.14           76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59						
76         0.6704         0.7185         0.7693         7.07%         2.18           77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5444         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59	75					
77         0.6483         0.6952         0.7449         7.15%         2.21           78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63						
78         0.6270         0.6728         0.7214         7.22%         2.25           79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67						
79         0.6064         0.6512         0.6987         7.29%         2.28           80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91						
80         0.5867         0.6304         0.6768         7.36%         2.31           81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92						
81         0.5677         0.6104         0.6557         7.42%         2.35           82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95						
82         0.5494         0.5911         0.6353         7.49%         2.38           83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94						
83         0.5317         0.5724         0.6157         7.56%         2.42           84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96						
84         0.5147         0.5545         0.5968         7.63%         2.45           85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96						
85         0.4983         0.5372         0.5786         7.70%         2.49           86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97						
86         0.4826         0.5205         0.5610         7.77%         2.52           87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98						
87         0.4674         0.5044         0.5440         7.84%         2.56           88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3217         0.3498         0.3800         8.63%         3.00           10	85	0.4983	0.5372	0.5786	7.70%	2.49
88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           10	86	0.4826	0.5205	0.5610	7.77%	2.52
88         0.4527         0.4889         0.5275         7.90%         2.59           89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           10	87	0.4674	0.5044	0.5440	7.84%	2.56
89         0.4386         0.4739         0.5117         7.97%         2.63           90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           1	88	0.4527	0.4889	0.5275		2.59
90         0.4249         0.4595         0.4964         8.04%         2.67           T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07						
T         Rmin         Rcent         Rmax         DR         DT(°C)           91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.15 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
91         0.4118         0.4455         0.4816         8.10%         2.70           92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.15           103         0.2853         0.3109         0.3385         8.88%         3.15						
92         0.3991         0.4321         0.4674         8.17%         2.74           93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3217         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19	T	Rmin	Rcent	Rmax	DR	DT(°C)
93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22	91	0.4118	0.4455	0.4816	8.10%	
93         0.3868         0.4191         0.4536         8.24%         2.77           94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22	92	0.3991	0.4321	0.4674	8.17%	2.74
94         0.3750         0.4065         0.4402         8.30%         2.81           95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3220         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26	93	0.3868	0.4191	0.4536	8.24%	2.77
95         0.3636         0.3944         0.4274         8.37%         2.85           96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3290         8.95%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30	94	0.3750	0.4065	0.4402	8.30%	2.81
96         0.3526         0.3826         0.4149         8.43%         2.88           97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34 <tr< td=""><td>95</td><td></td><td></td><td></td><td></td><td></td></tr<>	95					
97         0.3419         0.3713         0.4029         8.50%         2.92           98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
98         0.3317         0.3604         0.3912         8.56%         2.96           99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38					9.50%	
99         0.3217         0.3498         0.3800         8.63%         3.00           100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38						
100         0.3121         0.3396         0.3691         8.69%         3.03           101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38						
101         0.3029         0.3297         0.3586         8.76%         3.07           102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38						
102         0.2939         0.3201         0.3484         8.82%         3.11           103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38						
103         0.2853         0.3109         0.3385         8.88%         3.15           104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38						
104         0.2769         0.3019         0.3290         8.95%         3.19           105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38						
105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38						
105         0.2688         0.2933         0.3197         9.01%         3.22           106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38	104	0.2769	0.3019	0.3290	8.95%	3.19
106         0.2610         0.2849         0.3108         9.07%         3.26           107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38	105	0.2688	0.2933	0.3197		3.22
107         0.2534         0.2768         0.3021         9.14%         3.30           108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38						
108         0.2461         0.2690         0.2937         9.20%         3.34           109         0.2390         0.2614         0.2856         9.26%         3.38						
109 0.2390 0.2614 0.2856 9.26% 3.38						
110   0.2321   0.2340   0.2111   9.33%   3.42						
		0.2321	0.2340	0.2111	3.33/0	J.42

Note: T : Temperature(°C)

Minimum value of Resistance Rcent: Central value of Resistance Rmax: Maximum value of Resistance

: Deviation Ratio DR

DT : Deviation Temperature

# Thermistor: 103HF

Т							
	Rmin	Rcent	Rmax	DR	DT(°C)	T	
-30	159.2	173.8	189.6	9.05%	1.42	51	
-29	150.0	163.6	178.2	8.92%	1.41	52	
-28	141.4	154.0	167.5	8.79%	1.40	53	
-27	133.3	145.0	157.6	8.66%	1.39	54	
-26	125.8	136.6	148.3	8.53%	1.38	55	
-25	118.7	128.8	139.6	8.40%	1.37	56	
-24	112.0	121.4	131.4	8.27%	1.36	57	
-23	105.8	114.5	123.8	8.15%	1.35	58	
-22	99.89	108.0	116.7	8.02%	1.33	59	
-21	94.38	101.9	110.0	7.90%	1.32	60	
-20	89.20	96.22	103.7	7.77%	1.31	61	
-19	84.34	90.87	97.82	7.65%	1.30	62	
-18	79.76	85.84	92.30	7.53%	1.29	63	
-17	75.46	81.12	87.13	7.40%	1.28	64	
-16	71.42	76.69	82.28	7.28%	1.26	65	
-15	67.61	72.52	77.72	7.16%	1.25	- 66	
-14	64.03	68.61	73.44	7.04%	1.24	67	
-13	60.66	64.92	69.42	6.93%	1.23	68	
-12	57.48	61.45	65.64	6.81%	1.22	69	
-11	54.49	58.19	62.09	6.69%	1.20	70	
-10	51.67	55.12	58.74	6.58%	1.19	71	
-9	49.01	52.23	55.60	6.46%	1.18	72	
-8 -7	46.51 44.14	49.50 46.94	52.65 49.86	6.35% 6.23%	1.16 1.15	73	L
-6	44.14	46.94	49.86	6.23%	1.15	74	
-5	39.80	44.32	44.77	6.01%	1.14	75	
-4	37.81	40.08	42.45	5.90%	1.13	76	
-3	35.94	38.05	40.25	5.79%	1.10	77	L
-2	34.16	36.13	38.19	5.68%	1.09	78	
-1	32.48	34.32	36.24	5.57%	1.07	79	
0	30.90	32.62	34.40	5.46%	1.06	80	
1	29.40	31.00	32.66	5.36%	1.04	81	
2	27.98	29.48	31.02	5.25%	1.03	82	
3	26.64	28.03	29.48	5.15%	1.02	83	
4	25.37	26.67	28.01	5.04%	1.00	84	
5	24.16	25.38	26.63	4.94%	0.99	85	(
6	23.03	24.16	25.33	4.83%	0.97	86	(
7	21.95	23.01	24.09	4.73%	0.96	87	(
8	20.92	21.91	22.93	4.63%	0.95	88	(
9	19.96	20.88	21.82	4.53%	0.93	89	(
10	19.04	19.90	20.78	4.43%	0.92	90	(
Т	Rmin	Rcent	Rmax	DR	DT(°C)	] T	1
11	18.17	18.97	19.79	4.33%	0.90	91	-
12	17.34	18.09	18.85	4.23%	0.89	92	
13	16.55	17.25	17.97	4.13%	0.87	93	$\vdash$
14	15.81	16.46	17.13	4.03%	0.86	94	
15	15.10	15.71	16.33	3.93%	0.84	95	
16	14.43	15.00	15.57	3.84%	0.83	96	
17	13.79	14.32	14.86	3.74%	0.81	97	
18	13.19	13.68	14.18	3.65%	0.80	98	
19	12.61	13.07	13.54	3.55%	0.78		_
20		13.07			0.70	l l qq	
21	12.06	12.49	12.92	3.46%	0.76	99	
	12.06 11.54	12.49 11.94	12.92 12.34	3.46% 3.37%		100	
22		12.49	12.92		0.76	100	
	11.54	12.49 11.94	12.92 12.34 11.79 11.27	3.37%	0.76 0.75	100 101 102	
22 23 24	11.54 11.05 10.58 10.13	12.49 11.94 11.42 10.92 10.45	12.92 12.34 11.79 11.27 10.77	3.37% 3.27% 3.18% 3.09%	0.76 0.75 0.73 0.72 0.70	100 101 102 103	
22 23	11.54 11.05 10.58	12.49 11.94 11.42 10.92	12.92 12.34 11.79 11.27	3.37% 3.27% 3.18%	0.76 0.75 0.73 0.72	100 101 102 103 104	
22 23 24 25 26	11.54 11.05 10.58 10.13 9.700 9.277	12.49 11.94 11.42 10.92 10.45 10.00 9.572	12.92 12.34 11.79 11.27 10.77 10.30 9.868	3.37% 3.27% 3.18% 3.09% 3.00% 3.09%	0.76 0.75 0.73 0.72 0.70 0.68 0.71	100 101 102 103 104 105	
22 23 24 25 26 27	11.54 11.05 10.58 10.13 9.700 9.277 8.875	12.49 11.94 11.42 10.92 10.45 10.00 9.572 9.165	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456	3.37% 3.27% 3.18% 3.09% 3.00% 3.09% 3.18%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73	100 101 102 103 104 105 106	
22 23 24 25 26 27 28	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492	12.49 11.94 11.42 10.92 10.45 10.00 9.572 9.165 8.777	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064	3.37% 3.27% 3.18% 3.09% 3.00% 3.09% 3.18% 3.27%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73	100 101 102 103 104 105 106 107	
22 23 24 25 26 27 28 29	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128	12.49 11.94 11.42 10.92 10.45 10.00 9.572 9.165 8.777 8.408	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691	3.37% 3.27% 3.18% 3.09% 3.00% 3.09% 3.18% 3.27% 3.36%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79	100 101 102 103 104 105 106 107 108	
22 23 24 25 26 27 28 29 30	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781	12.49 11.94 11.42 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335	3.37% 3.27% 3.18% 3.09% 3.00% 3.09% 3.18% 3.27% 3.36% 3.45%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79	100 101 102 103 104 105 106 107	
22 23 24 25 26 27 28 29 30 31	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452	12.49 11.94 11.42 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995	3.37% 3.27% 3.18% 3.09% 3.00% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81	100 101 102 103 104 105 106 107 108	
22 23 24 25 26 27 28 29 30 31 32	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138	12.49 11.94 11.92 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671	3.37% 3.27% 3.18% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.84	100 101 102 103 104 105 106 107 108	
22 23 24 25 26 27 28 29 30 31 32 33	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839	12.49 11.94 11.42 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362	3.37% 3.27% 3.18% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.84 0.89	100 101 102 103 104 105 106 107 108 109 110	
22 23 24 25 26 27 28 29 30 31 32 32 33 34	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554	12.49 11.94 11.42 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.995 7.362 7.067	3.37% 3.27% 3.18% 3.09% 3.00% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.84 0.89	100 101 102 103 104 105 106 107 108	
22 23 24 25 26 27 28 29 30 31 32 33 34 35	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282	12.49 11.94 11.92 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786	3.37% 3.27% 3.18% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 3.88%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.84 0.84 0.86 0.89 0.92	100 101 102 103 104 105 106 107 108 109 110	
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36	11.54 11.05 10.58 10.13 9.700 9.277 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024	12.49 11.94 11.94 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517	3.37% 3.27% 3.18% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 3.88% 3.97%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.86 0.89 0.92 0.94 0.97	100 101 102 103 104 105 106 107 108 109 110	mii
22 23 24 25 26 27 28 29 30 31 31 32 33 34 35 36 37	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777	12.49 11.94 11.92 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 3.88% 3.97% 4.05%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.84 0.86 0.89 0.92 0.94 0.97 1.00	100 101 102 103 104 105 106 107 108 109 110 Note: T	
22 23 24 25 26 27 28 29 30 31 32 32 33 34 35 36 37 38	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777	12.49 11.94 11.94 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016 5.776	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015	3.37% 3.27% 3.18% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 3.88% 3.97% 4.05% 4.14%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.84 0.86 0.89 0.92 0.94 0.97	100 101 102 103 104 105 106 107 108 109 110 Note: T	
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777 5.542 5.317	12.49 11.94 11.94 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.532 6.268 6.016 5.776 5.547	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015 5.781	3.37% 3.27% 3.18% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 4.05% 4.14% 4.22%	0.76 0.75 0.73 0.72 0.70 0.68 0.79 0.79 0.81 0.84 0.86 0.89 0.94 0.97 1.00 1.00 1.005	100 101 102 103 104 105 106 107 108 109 110 Note: T	ce
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777 5.542 5.317	12.49 11.94 11.94 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016 5.776 5.547 5.328	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015 5.781 5.557	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 3.88% 3.97% 4.05% 4.14% 4.22% 4.31%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.84 0.86 0.89 0.92 0.94 0.97 1.00 1.02 1.05 1.08	100 101 102 103 104 105 106 107 108 109 110 Note: T	ce
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777 5.542 5.103 4.899	12.49 11.94 11.94 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016 5.776 5.547 5.328 5.119	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015 5.781 5.557 5.343	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 4.05% 4.14% 4.22% 4.31% 4.39%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.86 0.89 0.92 0.94 0.97 1.00 1.02 1.05 1.08	100 101 102 103 104 105 106 107 108 109 110 Note: T	ce ma
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777 5.542 5.317 5.103 4.899 4.704	12.49 11.94 11.94 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.532 6.268 6.016 5.776 5.547 5.328 5.119 4.919	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015 5.781 5.557 5.343 5.139	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.45% 3.53% 3.62% 3.71% 3.79% 4.05% 4.14% 4.22% 4.31% 4.39% 4.47%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.84 0.86 0.89 0.92 0.94 1.00 1.02 1.05 1.08 1.10	100 101 102 103 104 105 106 107 108 109 110 Note: T	ce ma
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777 5.542 5.317 5.103 4.899 4.704 4.518	12.49 11.94 11.94 11.42 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016 5.776 5.547 5.328 5.119 4.919 4.728	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015 5.781 5.557 5.343 5.139 4.943	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 4.05% 4.14% 4.22% 4.31% 4.39% 4.47% 4.55%	0.76 0.75 0.73 0.72 0.70 0.68 0.79 0.79 0.84 0.86 0.89 0.92 0.94 0.97 1.00 1.05 1.08 1.10 1.13	100 101 102 103 104 105 106 107 108 109 110 Note: T	cei ma R
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.024 5.777 5.542 5.317 5.103 4.899 4.704 4.518 4.340	12.49 11.94 11.94 11.42 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016 5.776 5.328 5.119 4.919 4.728	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015 5.781 5.557 5.343 5.139 4.943 4.756	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.45% 3.45% 3.71% 3.79% 4.05% 4.14% 4.22% 4.31% 4.39% 4.47% 4.55% 4.64%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.84 0.86 0.89 0.92 0.94 0.97 1.00 1.02 1.05 1.08 1.10 1.13 1.16 1.19	100 101 102 103 104 105 106 107 108 109 110 Note: T	cei ma R
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777 5.542 5.317 5.103 4.899 4.704 4.518 4.340 4.170	12.49 11.94 11.94 11.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016 5.776 5.547 5.328 5.119 4.919 4.728 4.545	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015 5.781 5.557 5.343 5.139 4.943 4.756 4.577	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 4.05% 4.14% 4.22% 4.31% 4.39% 4.47% 4.55% 4.64% 4.72%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.84 0.86 0.89 0.92 0.94 1.00 1.02 1.05 1.08 1.10 1.13 1.16 1.19 1.22	100 101 102 103 104 105 106 107 108 109 110 Note: T	cei ma R
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.282 6.024 5.777 5.542 5.317 5.103 4.899 4.704 4.518 4.340 4.170 4.008	12.49 11.94 11.94 11.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.532 6.268 6.016 5.776 5.547 5.328 5.119 4.728 4.545 4.371 4.204	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015 5.781 5.557 5.343 4.943 4.756 4.577 4.406	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 4.05% 4.14% 4.22% 4.31% 4.39% 4.47% 4.55% 4.64% 4.72% 4.80%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.84 0.86 0.89 0.92 0.94 0.97 1.00 1.02 1.05 1.08 1.11 1.13 1.16 1.19 1.22 1.25	100 101 102 103 104 105 106 107 108 109 110 Note: T	cei ma R
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777 5.542 5.317 5.103 4.899 4.518 4.340 4.170 4.008 3.853	12.49 11.94 11.94 11.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016 5.776 5.547 5.328 5.119 4.919 4.728 4.545 4.371 4.204 4.044	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.517 6.260 5.781 5.557 5.343 5.139 4.943 4.756 4.577 4.406 4.242	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 4.05% 4.14% 4.22% 4.31% 4.39% 4.47% 4.55% 4.64% 4.72% 4.80% 4.80%	0.76 0.75 0.73 0.72 0.70 0.68 0.79 0.79 0.84 0.84 0.86 0.89 0.92 0.94 0.97 1.00 1.02 1.05 1.08 1.10 1.13 1.16 1.19 1.22 1.25 1.27	100 101 102 103 104 105 106 107 108 109 110 Note: T	cei ma R
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.024 5.777 5.542 5.317 5.103 4.899 4.704 4.518 4.340 4.170 4.008 3.885 3.704	12.49 11.94 11.94 11.42 10.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016 5.776 5.328 5.119 4.919 4.728 4.545 4.371 4.204 4.044 3.892	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.015 5.781 5.557 5.343 5.139 4.943 4.756 4.577 4.406 4.242 4.085	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.45% 3.45% 3.45% 3.45% 3.45% 4.42% 4.31% 4.22% 4.31% 4.39% 4.47% 4.55% 4.64% 4.72% 4.80% 4.80% 4.88% 4.96%	0.76 0.75 0.73 0.72 0.70 0.68 0.71 0.73 0.76 0.79 0.81 0.84 0.86 0.89 0.92 0.94 0.97 1.00 1.02 1.05 1.08 1.10 1.13 1.16 1.19 1.22 1.25 1.27 1.30	100 101 102 103 104 105 106 107 108 109 110 Note: T	cei ma R
22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	11.54 11.05 10.58 10.13 9.700 9.277 8.875 8.492 8.128 7.781 7.452 7.138 6.839 6.554 6.282 6.024 5.777 5.542 5.317 5.103 4.899 4.518 4.340 4.170 4.008 3.853	12.49 11.94 11.94 11.92 10.45 10.00 9.572 9.165 8.777 8.408 8.057 7.722 7.403 7.099 6.809 6.532 6.268 6.016 5.776 5.547 5.328 5.119 4.919 4.728 4.545 4.371 4.204 4.044	12.92 12.34 11.79 11.27 10.77 10.30 9.868 9.456 9.064 8.691 8.335 7.995 7.671 7.362 7.067 6.786 6.517 6.260 6.517 6.260 5.781 5.557 5.343 5.139 4.943 4.756 4.577 4.406 4.242	3.37% 3.27% 3.18% 3.09% 3.09% 3.09% 3.18% 3.27% 3.36% 3.45% 3.53% 3.62% 3.71% 3.79% 4.05% 4.14% 4.22% 4.31% 4.39% 4.47% 4.55% 4.64% 4.72% 4.80% 4.80%	0.76 0.75 0.73 0.72 0.70 0.68 0.79 0.79 0.84 0.84 0.86 0.89 0.92 0.94 0.97 1.00 1.02 1.05 1.08 1.10 1.13 1.16 1.19 1.22 1.25 1.27	100 101 102 103 104 105 106 107 108 109 110 Note: T	

Т	Rmin	Rcent	Rmax	DR	DT(°C)
51	3.297	3.472	3.652	5.20%	1.39
52	3.173	3.344	3.520	5.28%	1.42
53	3.054	3.221	3.394	5.36%	1.45
54	2.940	3.103	3.272	5.44%	1.48
55	2.832	2.990	3.155	5.52%	1.51
56	2.727	2.882	3.044	5.59%	1.54
57	2.627	2.779	2.936	5.67%	1.57
58	2.532	2.680	2.834	5.75%	1.60
59	2.440	2.584	2.735	5.83%	1.63
60	2.352	2.493	2.640	5.90%	1.66
61	2.267	2.405	2.549	5.98%	1.69
62	2.187	2.321	2.462	6.05%	1.72
63	2.109	2.240	2.378	6.13%	1.76
64	2.035	2.163	2.297	6.20%	1.79
65	1.963	2.088	2.219	6.28%	1.82
66	1.894	2.017	2.145	6.35%	1.85
67	1.829	1.948	2.073	6.43%	1.88
68	1.765	1.882	2.004	6.50%	1.91
69	1.705	1.818	1.938	6.57%	1.95
70	1.646	1.757	1.874	6.64%	1.98
71	1.590	1.699	1.813	6.72%	2.01
72	1.536	1.642	1.754	6.79%	2.04
73	1.485	1.588	1.697	6.86%	2.08
74	1.435	1.536	1.642	6.93%	2.11
75	1.387	1.485	1.589	7.00%	2.14
76	1.341	1.437	1.539	7.07%	2.18
77	1.297	1.390	1.490	7.15%	2.21
78	1.254	1.346	1.443	7.22%	2.25
79	1.213	1.302	1.397	7.29%	2.28
80	1.173	1.261	1.354	7.36%	2.31
81	1.135	1.221	1.311	7.42%	2.35
82	1.099	1.182	1.271	7.49%	2.38
83	1.063	1.145	1.231	7.56%	2.42
84	1.029	1.109	1.194	7.63%	2.45
85	0.9967	1.074	1.157	7.70%	2.49
86	0.9651	1.041	1.122	7.77%	2.52
87	0.9347	1.009	1.088	7.84%	2.56
88	0.9054	0.9778	1.055	7.90%	2.59
89	0.8771	0.9479	1.023	7.97%	2.63
90	0.8498	0.9190	0.9928	8.04%	2.67

Т	Rmin	Rcent	Rmax	DR	DT(°C)
91	0.8235	0.8911	0.9633	8.10%	2.70
92	0.7981	0.8641	0.9347	8.17%	2.74
93	0.7736	0.8381	0.9071	8.24%	2.77
94	0.7500	0.8130	0.8805	8.30%	2.81
95	0.7272	0.7887	0.8547	8.37%	2.85
96	0.7051	0.7653	0.8298	8.43%	2.88
97	0.6839	0.7426	0.8058	8.50%	2.92
98	0.6633	0.7208	0.7825	8.56%	2.96
99	0.6435	0.6996	0.7600	8.63%	3.00
100	0.6243	0.6792	0.7382	8.69%	3.03
101	0.6057	0.6594	0.7171	8.76%	3.07
102	0.5878	0.6403	0.6967	8.82%	3.11
103	0.5705	0.6218	0.6770	8.88%	3.15
104	0.5538	0.6039	0.6579	8.95%	3.19
105	0.5376	0.5866	0.6394	9.01%	3.22
106	0.5219	0.5698	0.6215	9.07%	3.26
107	0.5068	0.5536	0.6042	9.14%	3.30
108	0.4921	0.5379	0.5874	9.20%	3.34
109	0.4780	0.5227	0.5711	9.26%	3.38
110	0.4643	0.5080	0.5554	9.33%	3.42
			·	·	

: Temperature(°C)

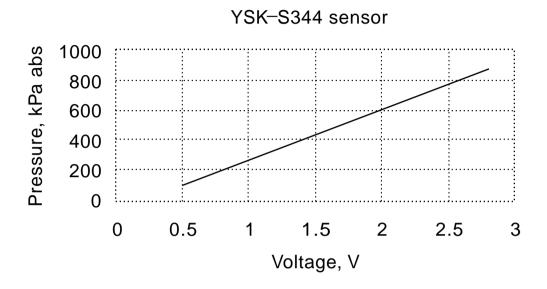
in: Minimum value of Resistance ent: Central value of Resistance ax: Maximum value of Resistance

: Deviation Ratio

**Deviation Temperature** 

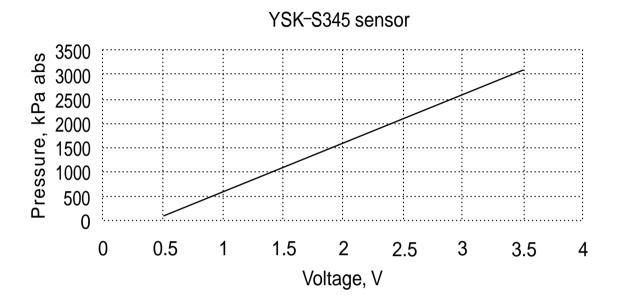
# **Voltage-Pressure Table**

# Low pressure sensor



Voltage, V	P, kPa	Tbub, °C	Voltage, V	P, kPa	Tbub, °C	Voltage, V	P, kPa	Tbub, °C
0.5	101	-43.9	1.28	361	-13.2	2.06	621	2.8
0.53	111	-41.9	1.31	371	-12.5	2.09	631	3.3
0.56	121	-40.0	1.34	381	-11.7	2.12	641	3.8
0.59	131	-38.3	1.37	391	-11.0	2.15	651	4.3
0.62	141	-36.7	1.4	401	-10.3	2.18	661	4.8
0.65	151	-35.1	1.43	411	-9.6	2.21	671	5.3
0.68	161	-33.6	1.46	421	-8.9	2.24	681	5.7
0.71	171	-32.3	1.49	431	-8.2	2.27	691	6.2
0.74	181	-30.9	1.52	441	-7.6	2.3	701	6.7
0.77	191	-29.6	1.55	451	-6.9	2.33	711	7.1
0.8	201	-28.4	1.58	461	-6.3	2.36	721	7.6
0.83	211	-27.2	1.61	471	-5.6	2.39	731	8.0
0.86	221	-26.1	1.64	481	-5.0	2.42	741	8.5
0.89	231	-25.0	1.67	491	-4.4	2.45	751	8.9
0.92	241	-23.9	1.7	501	-3.8	2.48	761	9.4
0.95	251	-22.9	1.73	511	-3.2	2.51	771	9.8
0.98	261	-21.9	1.76	521	-2.6	2.54	781	10.2
1.01	271	-20.9	1.79	531	-2.1	2.57	791	10.7
1.04	281	-20.0	1.82	541	-1.5	2.6	801	11.1
1.07	291	-19.1	1.85	551	-0.9	2.63	811	11.5
1.1	301	-18.2	1.88	561	-0.4	2.66	821	11.9
1.13	311	-17.3	1.91	571	0.2	2.69	831	12.3
1.16	321	-16.5	1.94	581	0.7	2.72	841	12.7
1.19	331	-15.6	1.97	591	1.2	2.75	851	13.1
1.22	341	-14.8	2	601	1.8	2.78	861	13.5
1.25	351	-14.0	2.03	611	2.3	2.81	871	13.9

# High pressure sensor

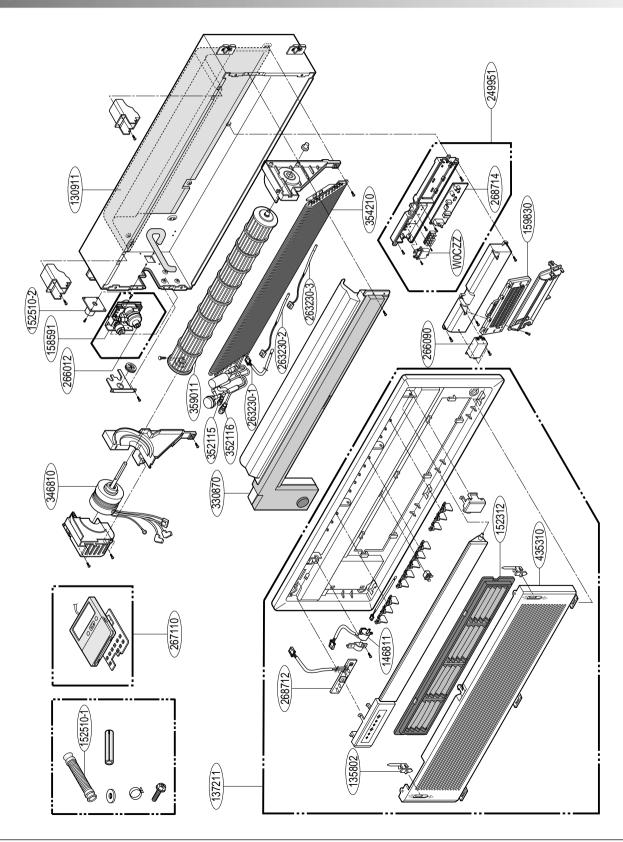


Voltage, V	P, kPa	Tbub, °C	Voltage, V	P, kPa	Tbub, °C	Voltage, V	P, kPa	Tbub, °C
1.28	881	14.3	2.06	1661	38.0	2.84	2441	54.4
1.31	911	15.5	2.09	1691	38.7	2.87	2471	54.9
1.34	941	16.6	2.12	1721	39.4	2.9	2501	55.5
1.37	971	17.7	2.15	1751	40.2	2.93	2531	56.0
1.4	1001	18.8	2.18	1781	40.9	2.96	2561	56.5
1.43	1031	19.8	2.21	1811	41.5	2.99	2591	57.1
1.46	1061	20.9	2.24	1841	42.2	3.02	2621	57.6
1.49	1091	21.9	2.27	1871	42.9	3.05	2651	58.1
1.52	1121	22.9	2.3	1901	43.6	3.08	2681	58.6
1.55	1151	23.8	2.33	1931	44.2	3.11	2711	59.1
1.58	1181	24.8	2.36	1961	44.9	3.14	2741	59.6
1.61	1211	25.7	2.39	1991	45.5	3.17	2771	60.1
1.64	1241	26.6	2.42	2021	46.1	3.2	2801	60.6
1.67	1271	27.5	2.45	2051	46.8	3.23	2831	61.1
1.7	1301	28.4	2.48	2081	47.4	3.26	2861	61.6
1.73	1331	29.3	2.51	2111	48.0	3.29	2891	62.1
1.76	1361	30.1	2.54	2141	48.6	3.32	2921	62.6
1.79	1391	31.0	2.57	2171	49.2	3.35	2951	63.1
1.82	1421	31.8	2.6	2201	49.8	3.38	2981	63.5
1.85	1451	32.6	2.63	2231	50.4	3.41	3011	64.0
1.88	1481	33.4	2.66	2261	51.0	3.44	3041	64.5
1.91	1511	34.2	2.69	2291	51.6	3.47	3071	64.9
1.94	1541	35.0	2.72	2321	52.1	3.5	3101	65.4
1.97	1571	35.8	2.75	2351	52.7			
2	1601	36.5	2.78	2381	53.3			
2.03	1631	37.3	2.81	2411	53.8			

# **Exploded View & Replacement Parts List**

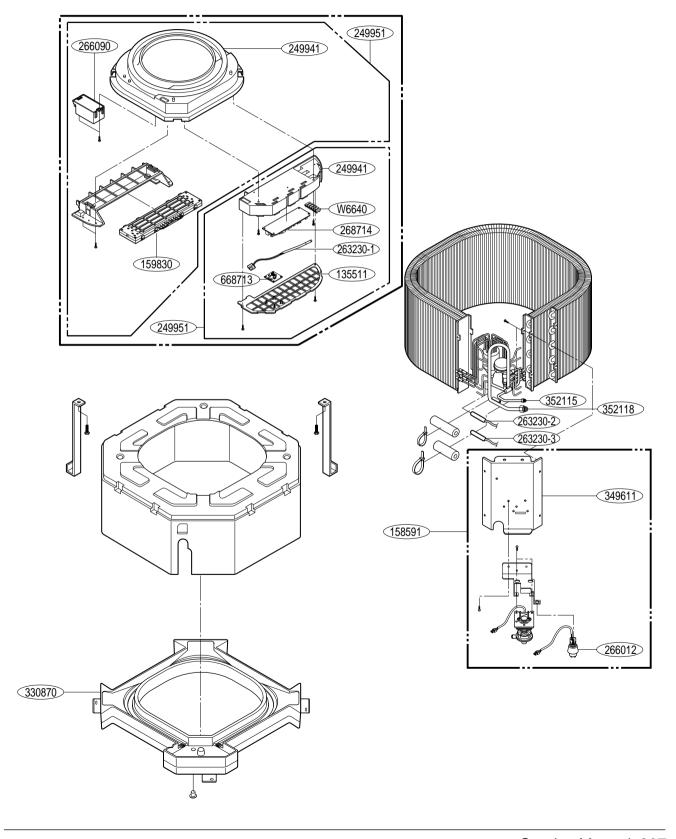
# 7. Exploded View & Replacement Parts List

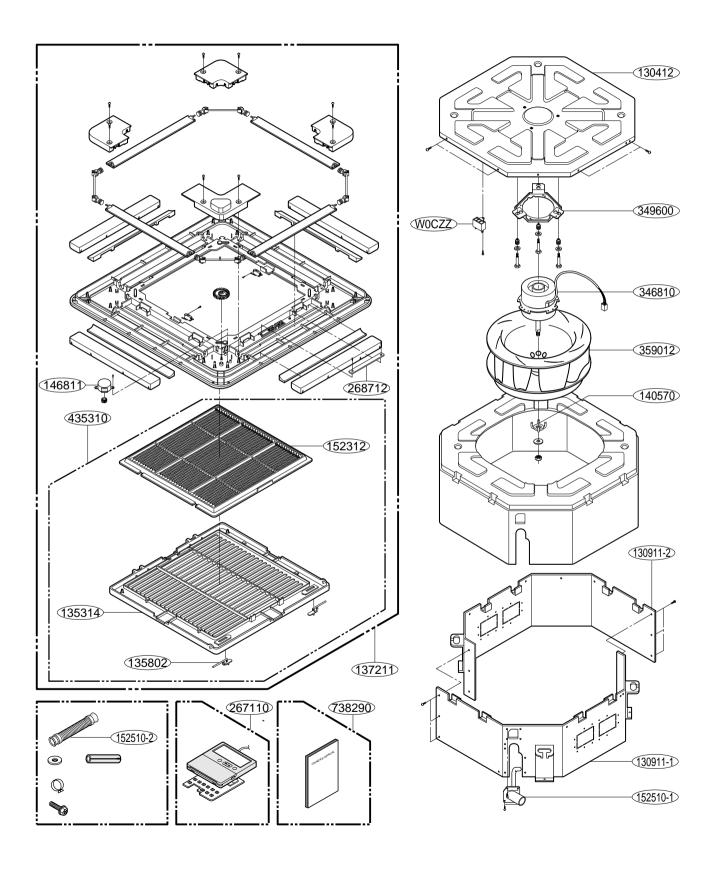
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LOCATION	DESCRIPTION		PART No.		REMARK
No.	DESCRIPTION	LRNN096TCA0	LRNV092TCC0	LRNV122TCC0	REWIARK
130911	CABINET ASSEMBLY,INDOOR	3091A10024A	3091A10024A	3091A10024A	
146811	MOTOR ASSEMBLY,STEP	4681AR2727G	4681AR2727G	4681AR2727G	
152312	FILTER ASSEMBLY,AIR CLEANER_1	5231A10003A	5231A10003A	5231A10003A	
158591	PUMP ASSEMBLY, WATER	5859A10001A	5859A10001A	5859A10001A	
137211	PANEL ASSEMBLY,FRONT	3721A10069K	3721A10069J	3721A10069J	
249951	CONTROL BOX ASSEMBLY, INDDOR	4995A11006A	4995A11006B	4995A11006C	
263230	THERMISTOR ASSEMBLY(ROOM)	6323AQ3214P	6323AQ3214P	6323AQ3214P	
263230	THERMISTOR ASSEMBLY(PIPE_IN)	6323AQ3226E	6323AQ3226E	6323AQ3226E	
263230	THERMISTOR ASSEMBLY(PIPE_OUT)	6323AQ3226V	6323AQ3226V	6323AQ3226V	
266012	SWITCH ASSEMBLY,FLOAT	6601A20001E	6601A20001E	6601A20001E	
267110	REMOTE CONTROLLER ASSEMBLY	6711A10002A	6711A10002Q	6711A10002Q	
268712	PWB(PCB) ASSEMBLY,DISPLAY	6871A20096B	6871A20096B	6871A20096B	
268714	PWB(PCB)ASSEMBLY,MAIN	6871A10187J	6871A10148W	6871A10148K	
330870	DRAIN PAN ASSEMBLY	3087A10005A	3087A10005A	3087A10005A	
346810	MOTOR ASSEMBLY,INDOOR	4681A20003V	4681A20003V	4681A20003V	
352115	TUBE ASSEMBLY,EVAPORATOR IN	5211A10303A	5211A10303A	5211A10303A	
352116	TUBE ASSEMBLY, EVAPORATOR OUT	5211A20230D	5211A20230D	5211A20230D	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A10011A	5421A10011A	5421A10011A	
359011	FAN ASSEMBLY,CROSS FLOW	5901AR2441A	5901AR2441A	5901AR2441A	
435310	GRILLE ASSEMBLY,INLET	3531A10062D	3531A10062D	3531A10062D	
W0CZZ	CAPACITOR, DRAWING	3H00671E	3H00671E	3H00671E	
152510	DRAIN TUBE ASSEMBLY_1	5251AP2984A	5251AP2984A	5251AP2984A	
152510	DRAIN ASSEMBLY,TUBE_2	5251A20001A	5251A20001A	5251A20001A	
266090	H.V ASSEMBLY	-	6609A20005C	6609A20005C	
159830	AIR CLEANER ASSEMBLY	-	5983A10006C	5983A10006C	

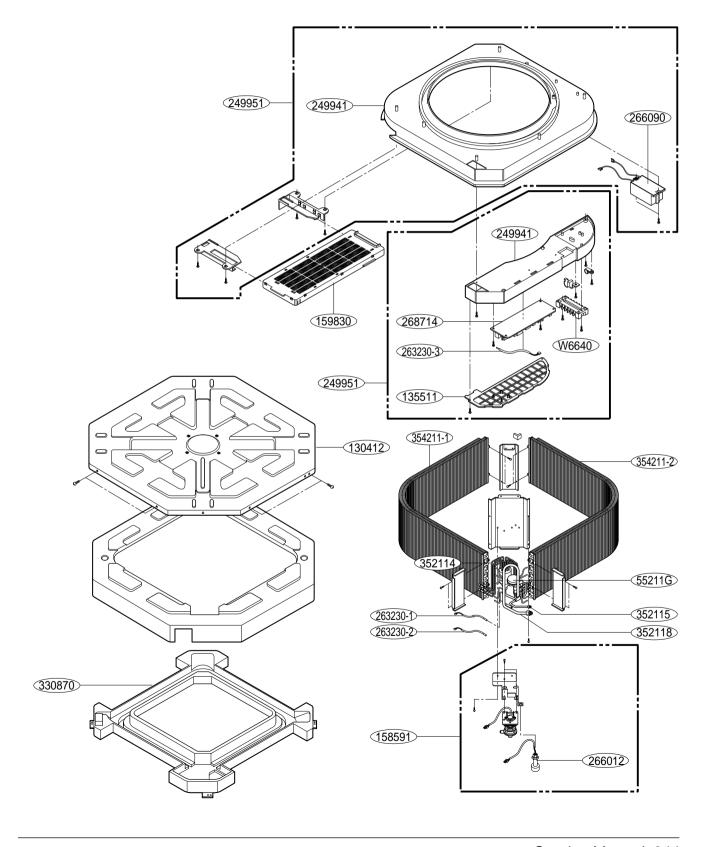
LOCATION	DESCRIPTION		PART No.				
No.	DESCRIPTION	LRNN076TCA0	LRNV092TCA0	LRNN126TCA0	LRNV126TCA0	REMARK	
130911	CABINET ASSEMBLY,INDOOR	3091A10024A	3091A10024A	3091A10024A	3091A10024A		
146811	MOTOR ASSEMBLY,STEP	4681AR2727G	4681AR2727G	4681AR2727G	4681AR2727G		
152312	FILTER ASSEMBLY,AIR CLEANER_1	5231A10003A	5231A10003A	5231A10003A	5231A10003A		
158591	PUMP ASSEMBLY,WATER	5859A10001A	5859A10001A	5859A10001A	5859A10001A		
137211	PANEL ASSEMBLY,FRONT	3721A10069K	3721A10069H	3721A10069K	3721A10069H		
249951	CONTROL BOX ASSEMBLY,INDDOR	4995A11006D	4995A11006B	4995A11006G	4995A11006H		
263230	THERMISTOR ASSEMBLY(ROOM)	6323AQ3214P	6323AQ3214P	6323AQ3214P	6323AQ3214P		
263230	THERMISTOR ASSEMBLY(PIPE_IN)	6323AQ3226E	6323AQ3226E	6323AQ3226E	6323AQ3226E		
263230	THERMISTOR ASSEMBLY(PIPE_OUT)	6323AQ3226V	6323AQ3226V	6323AQ3226V	6323AQ3226V		
266012	SWITCH ASSEMBLY,FLOAT	6601A20001E	6601A20001E	6601A20001E	6601A20001E		
267110	REMOTE CONTROLLER ASSEMBLY	6711A10002A	6711A20081M	6711A10002A	6711A20081M		
268712	PWB(PCB) ASSEMBLY, DISPLAY	6871A20096B	6871A20096B	6871A20096B	6871A20096B		
268714	PWB(PCB)ASSEMBLY,MAIN	6871A10187H	6871A10148W	6871A10187K	6871A10187Z		
330870	DRAIN PAN ASSEMBLY	3087A10005A	3087A10005A	3087A10005A	3087A10005A		
346810	MOTOR ASSEMBLY,INDOOR	4681A20003V	4681A20003V	4681A20003V	4681A20003V		
352115	TUBE ASSEMBLY, EVAPORATOR IN	5211A10303A	5211A10303A	5211A10303A	5211A10303A		
352116	TUBE ASSEMBLY, EVAPORATOR OUT	5211A20230D	5211A20230D	5211A20230D	5211A20230D		
354210	EVAPORATOR ASSEMBLY,FIRST	5421A10011B	5421A10011A	5421A10011A	5421A10011A		
359011	FAN ASSEMBLY,CROSS FLOW	5901AR2441A	5901AR2441A	5901AR2441A	5901AR2441A		
435310	GRILLE ASSEMBLY,INLET	3531A10062D	3531A10062D	3531A10062D	3531A10062D		
W0CZZ	CAPACITOR, DRAWING	3H00671E	3H00671E	3H00671E	3H00671E		
152510	DRAIN TUBE ASSEMBLY_1	5251AP2984A	5251AP2984A	5251AP2984A	5251AP2984A		
152510	DRAIN ASSEMBLY,TUBE_2	5251A20001A	5251A20001A	5251A20001A	5251A20001A		
266090	H.V ASSEMBLY	-	-	-	-		
159830	AIR CLEANER ASSEMBLY	-	-	-	-		

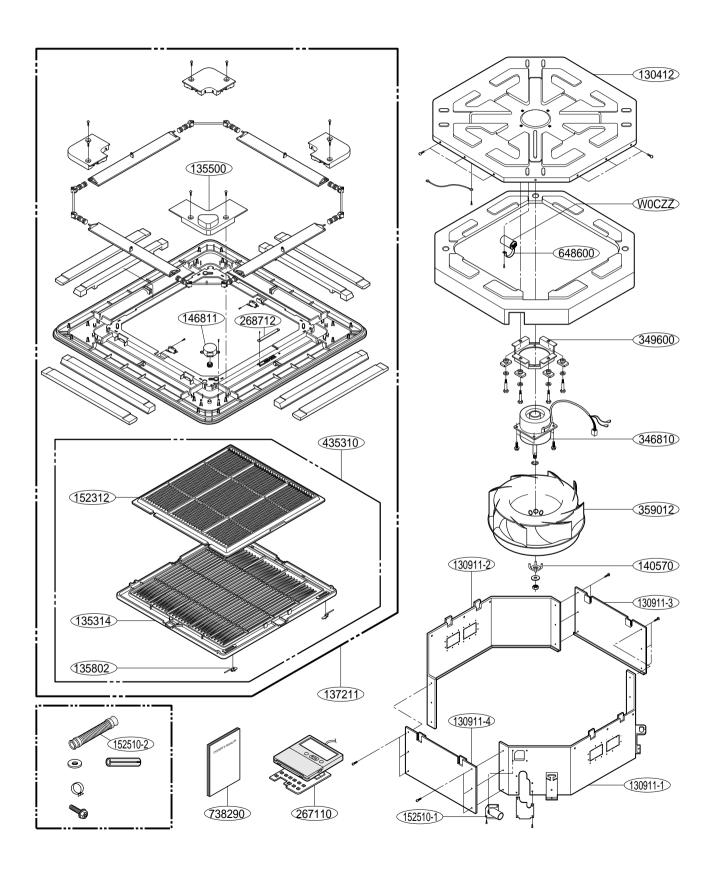




LOCATION	DESCRIPTION		REMARK			
No.	DESCRIPTION	LRNV126TEA0	LRNN126TEA0	LRNV186TEA0	LRNN186TEA0	KEWIAKK
130412	BASE ASSEMBLY,WELD[INDOOR]	3041A10013A	3041A10013A	3041A10013A	3041A10013A	
130911	CABINET ASSEMBLY,INDOOR	3091A10023C	3091A10023C	3091A10023C	3091A10023C	
130911	CABINET ASSEMBLY,INDOOR	3091A10023D	3091A10023D	3091A10023D	3091A10023D	
135314	GRILLE,INLET	3530A10065A	3530A10065A	3530A10065A	3530A10065A	
137211	PANEL ASSY,FRONT(INDOOR)	3721A10021C	3721A10021A	3721A10021C	3721A10021A	
135511	COVER	3550A20034A	3550A20034A	3550A20034A	3550A20034A	
135802	DOOR	3580A20005A	3580A20005A	3580A20005A	3580A20005A	
140570	LOCKER	4056A20001A	4056A20001A	4056A20001A	4056A20001A	
146811	MOTOR ASSEMBLY,STEP	4681AP2968D	4681AP2968D	4681AP2968D	4681AP2968D	
152312	FILTER ASSY,AIR CLEANER	5231A10005A	5231A10005A	5231A10005A	5231A10005A	
152510	DRAIN ASSY,TUBE	5251A20002A	5251A20002A	5251A20002A	5251A20002A	
152510	HOSE ASSEMBLY, DRAIN	5251AP2984A	5251AP2984A	5251AP2984A	5251AP2984A	
158591	PUMP ASSEMBLY, WATER	5859A20001H	5859A20001H	5859A20001H	5859A20001H	
249941	CONTROL BOX,INDOOR	4994A10014A	4994A10014A	4994A10014A	4994A10014A	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10083F	4995A10083C	4995A10083G	4995A10083D	
263230	THERMISTOR ASSEMBLY	6323A30002B	6323A30002B	6323A30002B	6323A30002B	
263230	THERMISTOR ASSEMBLY	6323A30004C	6323A30004C	6323A30004C	6323A30004C	
263230	THERMISTOR ASSEMBLY	6323AQ3226R	6323AQ3226R	6323AQ3226R	6323AQ3226R	
266012	SWITCH ASSY,FLOAT	6601A20001F	6601A20001F	6601A20001F	6601A20001F	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20081M	6711A20081J	6711A20081M	6711A20081J	
268712	PWB(PCB) ASSY,DISPLAY	6871A20096C	6871A20096C	6871A20096C	6871A20096C	
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10187N	6871A10187L	6871A10187P	6871A10187M	
330870	DRAIN PAN ASSEMBLY	3087A10002A	3087A10002A	3087A10002A	3087A10002A	
346810	MOTOR ASSEMBLY, SINGLE	4681AC2026E	4681AC2026E	4681AC2026D	4681AC2026D	
349600	MOUNT,MOTOR	4960A20010A	4960A20010A	4960A20010A	4960A20010A	
352115	TUBE ASSEMBLY, EVAPORATOR IN	5211A10335B	5211A10335B	5211A10335A	5211A10335A	
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A20241N	5211A20241N	5211A20241P	5211A20241P	
354211	EVAPORATOR ASSY,BENDING	5421A10006A	5421A10006A	5421A10006B	5421A10006B	
359012	FAN,TURBO	5900A10004A	5900A10004A	5900A10004A	5900A10004A	
435310	GRILLE ASSEMBLY,FRONT(INDOOR)	3531A10059A	3531A10059A	3531A10059A	3531A10059A	
W0CZZ	CAPACITOR, DRAWING	3H00660N	3H00660N	3H00660N	3H00660N	
W6640	TERMINAL BLOCK	6640W3A009B	6640W3A009B	6640W3A009B	6640W3A009B	

LOCATIONNS	DECODIDATION	PART No.	DEMARK
LOCATION No.	DESCRIPTION	LRNV182TEC0	REMARK
130412	BASE ASSEMBLY,WELD[INDOOR]	3041A10013A	
130911	CABINET ASSEMBLY,INDOOR	3091A10023C	
130911	CABINET ASSEMBLY,INDOOR	3091A10023D	
135314	GRILLE,INLET	3530A10065A	
135511	COVER	3550A20034A	
135802	DOOR	3580A20005A	
137211	PANEL ASSEMBLY,FRONT(INDOOR)	3721A10021S	
140570	LOCKER	4056A20001A	
146811	MOTOR ASSEMBLY,STEP	4681AP2968D	
152312	FILTER ASSY,AIR CLEANER	5231A10005A	
152510	DRAIN ASSY,TUBE	5251A20002A	
152510	HOSE ASSEMBLY, DRAIN	5251AP2984A	
158591	PUMP ASSEMBLY,WATER	5859A20001H	
159830	AIR CLEANER ASSEMBLY	5983A10002C	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10083E	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A20168B	
263230	THERMISTOR ASSEMBLY	6323A30002B	
263230	THERMISTOR ASSEMBLY	6323A30004C	
263230	THERMISTOR ASSEMBLY	6323AQ3226R	
266012	SWITCH ASSY,FLOAT	6601A20001F	
266090	H.V ASSEMBLY	6609A20005C	
267110	REMOTE CONTROLLER ASSEMBLY	6711A10002Q	
268712	PWB(PCB) ASSY,DISPLAY	6871A20096C	
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10148U	
330870	DRAIN PAN ASSEMBLY	3087A10002A	
346810	MOTOR ASSEMBLY,SINGLE	4681AC2026D	
349600	MOUNT,MOTOR	4960A20010A	
352115	TUBE ASSEMBLY, EVAPORATOR IN	5211A10335A	
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A20241P	
354211	EVAPORATOR ASSY,BENDING	5421A10006B	
359012	FAN,TURBO	5900A10004A	
435310	GRILLE ASSEMBLY,FRONT(INDOOR)	3531A10059A	
W0CZZ	CAPACITOR, DRAWING	3H00660N	
W6640	TERMINAL BLOCK	6640W3A009B	





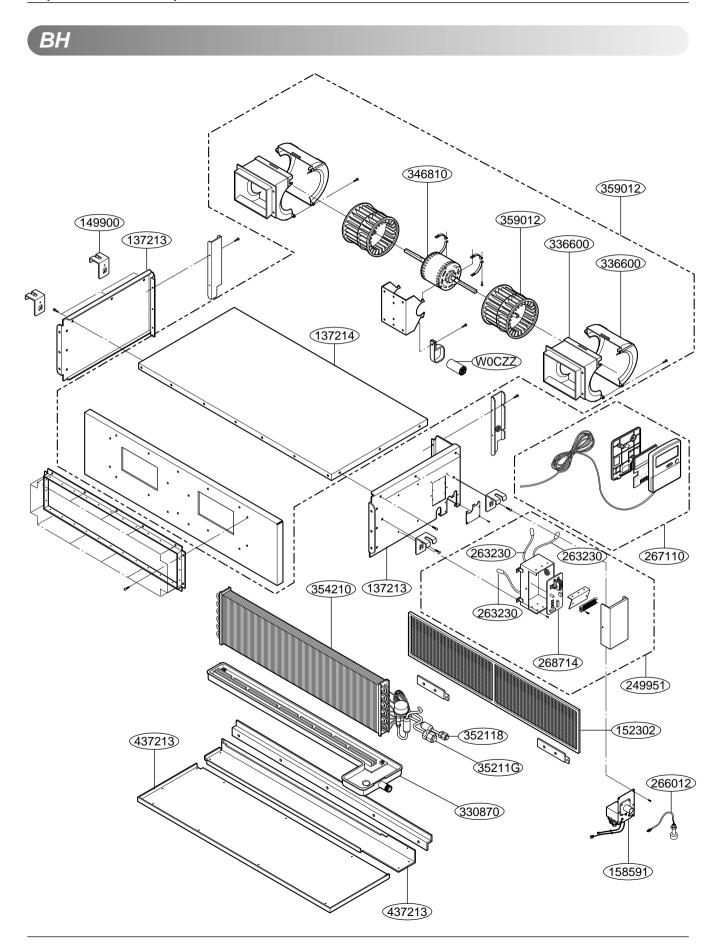
LOCATION	DESCRIPTION	PART NO.					
NO.	DESCRIPTION	LRNN216TDA0	LRNN212TDA0	LRNV246TDA0	LRNN246TDA0	REMARK	
130412	BASE ASSEMBLY, WELD[INDOOR]	3041A10016A	3041A10016A	3041A10016A	3041A10016A		
130911	CABINET ASSEMBLY,WELD	3091A10030A	3091A10030A	3091A10030D	3091A10030A		
130911	CABINET ASSEMBLY,WELD	3091A10030B	3091A10030B	3091A10030E	3091A10030B		
130911	CABINET ASSY,INDOOR	3091A10031A	3091A10031A	3091A10031C	3091A10031A		
130911	CABINET ASSY,INDOOR	3091A10031B	3091A10031B	3091A10031D	3091A10031B		
137211	PANEL ASSEMBLY,FRONT(INDOOR)	3721A10025A	3721A10025A	3721A10025B	3721A10025A		
135511	COVER	3550A20050A	3550A20050A	3550A20050A	3550A20050A		
135802	DOOR	3580A20005A	3580A20005A	3580A20005A	3580A20005A		
140570	LOCKER	4056A20001B	4056A20001B	4056A20001B	4056A20001B		
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055A		
152510	DRAIN ASSEMBLY,TUBE	5251A20002B	5251A20002B	5251A20002B	5251A20002B		
158591	PUMP,WATER	5858A10001G	5858A10001G	5858A10001G	5858A10001G		
158591	PUMP ASSEMBLY, WATER	5859A20001D	5859A20001D	5859A20001D	5859A20001D		
249941	CONTROL BOX,INDOOR	4994A10020A	4994A10020A	4994A10020A	4994A10020A		
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10152G	4995A10106A	4995A10152R	4995A10152H		
263230	THERMISTOR ASSEMBLY	6323A30002A	6323A30002A	6323A30002A	6323A30002A		
263230	THERMISTOR ASSEMBLY	6323A30004C	6323A30004C	6323A30004C	6323A30004C		
263230	THERMISTOR ASSEMBLY	6323AQ3226T	6323AQ3226T	6323AQ3226T	6323AQ3226T		
266012	SWITCH ASSY,FLOAT	6601A20001F	6601A20001F	6601A20001F	6601A20001F		
152312	FILTER ASSY,AIR CLEANER	5231A10004A	5231A10004A	5231A10004A	5231A10004A		
152510	HOSE ASSEMBLY, DRAIN	5251AP2984A	5251AP2984A	5251AP2984A	5251AP2984A		
267110	REMOTE CONTROLLER ASSEMBLY	6711A20081J	6711A20081J	6711A20081M	6711A20081J		
268712	PWB(PCB) ASSY,DISPLAY	6871A20096C	6871A20096C	6871A20096C	6871A20096C		
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10187D	6871A10148D	6871A10187R	6871A10187E		
330870	DRAIN PAN ASSEMBLY	3087A10006A	3087A10006B	3087A10006A	3087A10006A		
346810	MOTOR ASSEMBLY,INDOOR	4681A20006J	4681A20006T	4681A20006J	4681A20006J		
349600	MOUNT,MOTOR	4960AP7265A	4960AP7265A	4960AP7265A	4960AP7265A		
352114	TUBE ASSEMBLY, DISTRIBUTOR	5211A10299A	5211A10299A	5211A10299A	5211A10299A		
352118	TUBE ASSEMBLY, MENIFOLD (INDOOR)	5211A20251B	5211A20251B	5211A20251B	5211A20251B		
352118	TUBE ASSEMBLY, MENIFOLD (INDOOR)	5211A20251H	5211A20251H	5211A20251H	5211A20251H		
354211	EVAPORATOR ASSY,BENDING	5421A10016A	5421A10016A	5421A10016A	5421A10016A		
354211	EVAPORATOR ASSY,BENDING	5421A10016B	5421A10016B	5421A10016B	5421A10016B		
359012	FAN ASSEMBLY,TURBO	5900A10003B	5900A10003B	5900A10003B	5900A10003B		
435310	GRILLE ASSY,INLET	3531A10066A	3531A10066A	3531A10066A	3531A10066A		
55211G	TUBE ASSEMBLY, EXPANSION	5211A10298A	5211A10298A	5211A10298A	5211A10298A		
648600	CLAMP,CAPACITOR	4H00442C	4H00442C	4H00442C	4H00442C		
W0CZZ	CAPACITOR, DRAWING	3H00660M	3H00660M	3H00660M	3H00660M		
W6640	TERMINAL BLOCK	6640W3A009A	6640W3A009A	6640W3A009A	6640W3A009A		

LOCATION	DESCRIPTION	PART NO.					
NO.	DEGOMI HOM	LRNN242TDA0	LRNV286TDA0	LRNN286TDA0	LRNV282TDA0	REMARK	
130412	BASE ASSEMBLY,WELD[INDOOR]	3041A10016A	3041A10016A	3041A10016A	3041A10016A		
130911	CABINET ASSEMBLY,WELD	3091A10030A	3091A10030D	3091A10030A	3091A10030A		
130911	CABINET ASSEMBLY,WELD	3091A10030B	3091A10030E	3091A10030B	3091A10030B		
130911	CABINET ASSY,INDOOR	3091A10031A	3091A10031C	3091A10031A	3091A10031A		
130911	CABINET ASSY,INDOOR	3091A10031B	3091A10031D	3091A10031B	3091A10031B		
137211	PANEL ASSEMBLY,FRONT(INDOOR)	3721A10025A	3721A10025B	3721A10025A	3721A10025B		
135511	COVER	3550A20050A	3550A20050A	3550A20050A	3550A20050A		
135802	DOOR	3580A20005A	3580A20005A	3580A20005A	3580A20005A		
140570	LOCKER	4056A20001B	4056A20001B	4056A20001B	4056A20001B		
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055A		
152510	DRAIN ASSEMBLY,TUBE	5251A20002B	5251A20002B	5251A20002B	5251A20002B		
158591	PUMP,WATER	5858A10001G	5858A10001G	5858A10001G	5858A10001G		
158591	PUMP ASSEMBLY,WATER	5859A20001D	5859A20001D	5859A20001D	5859A20001D		
249941	CONTROL BOX,INDOOR	4994A10020A	4994A10020A	4994A10020A	4994A10020A		
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10106B	4995A10152S	4995A10152A	4995A10152P		
263230	THERMISTOR ASSEMBLY	6323A30002A	6323A30002A	6323A30002A	6323A30002A		
263230	THERMISTOR ASSEMBLY	6323A30004C	6323A30004C	6323A30004C	6323A30004C		
263230	THERMISTOR ASSEMBLY	6323AQ3226T	6323AQ3226T	6323AQ3226T	6323AQ3226T		
266012	SWITCH ASSY,FLOAT	6601A20001F	6601A20001F	6601A20001F	6601A20001F		
152312	FILTER ASSY,AIR CLEANER	5231A10004A	5231A10004A	5231A10004A	5231A10004A		
152510	HOSE ASSEMBLY, DRAIN	5251AP2984A	5251AP2984A	5251AP2984A	5251AP2984A		
267110	REMOTE CONTROLLER ASSEMBLY	6711A20081J	6711A20081M	6711A20081J	6711A20081M		
268712	PWB(PCB) ASSY,DISPLAY	6871A20096C	6871A20096C	6871A20096C	6871A20096C		
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10148E	6871A10187S	6871A10187A	6871A10148P		
330870	DRAIN PAN ASSEMBLY	3087A10006B	3087A10006A	3087A10006A	3087A10006F		
346810	MOTOR ASSEMBLY,INDOOR	4681A20006T	4681A20006J	4681A20006J	4681A20006R		
349600	MOUNT,MOTOR	4960AP7265A	4960AP7265A	4960AP7265A	4960AP7265A		
352114	TUBE ASSEMBLY, DISTRIBUTOR	5211A10299A	5211A10299A	5211A10299A	5211A10299A		
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A20251B	5211A20251B	5211A20251B	5211A20251B		
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A20251H	5211A20251H	5211A20251H	5211A20251H		
354211	EVAPORATOR ASSY,BENDING	5421A10016A	5421A10016A	5421A10016A	5421A10016A		
354211	EVAPORATOR ASSY,BENDING	5421A10016B	5421A10016B	5421A10016B	5421A10016B		
359012	FAN ASSEMBLY,TURBO	5900A10003B	5900A10003B	5900A10003B	5900A10003B		
435310	GRILLE ASSY,INLET	3531A10066A	3531A10066A	3531A10066A	3531A10066A		
55211G	TUBE ASSEMBLY, EXPANSION	5211A10298A	5211A10298B	5211A10298B	5211A10298B		
648600	CLAMP,CAPACITOR	4H00442C	4H00442C	4H00442C	4H00442C		
W0CZZ	CAPACITOR, DRAWING	3H00660M	3H00660M	3H00660M	2A00986D		
W6640	TERMINAL BLOCK	6640W3A009A	6640W3A009A	6640W3A009A	6640W3A009A		

LOCATION	DESCRIPTION	PART NO.					
NO.	DEGGINI HON	LRNV366TDA0	LRNN366TDA0	LRNV362TDA0	LRNN362TDA0	REMARK	
130412	BASE ASSEMBLY,WELD[INDOOR]	3041A10016A	3041A10016A	3041A10016A	3041A10016A		
130911	CABINET ASSEMBLY,WELD	3091A10030D	3091A10030A	3091A10031A	3091A10030A		
130911	CABINET ASSEMBLY,WELD	3091A10030E	3091A10030B	3091A10031B	3091A10030B		
130911	CABINET ASSY,INDOOR	3091A10031C	3091A10031A	3091A10030A	3091A10031A		
130911	CABINET ASSY,INDOOR	3091A10031D	3091A10031B	3091A10030B	3091A10031B		
137211	PANEL ASSEMBLY,FRONT(INDOOR)	3721A10025B	3721A10025A	3721A10025B	3721A10025A		
135511	COVER	3550A20050A	3550A20050A	3550A20050A	3550A20050A		
135802	DOOR	3580A20005A	3580A20005A	3580A20005A	3580A20005A		
140570	LOCKER	4056A20001B	4056A20001B	4056A20001B	4056A20001B		
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055A		
152510	DRAIN ASSEMBLY,TUBE	5251A20002B	5251A20002B	5251A20002B	5251A20002B		
158591	PUMP,WATER	5858A10001G	5858A10001G	5858A10001G	5858A10001G		
158591	PUMP ASSEMBLY, WATER	5859A20001D	5859A20001D	5859A20001D	5859A20001D		
249941	CONTROL BOX,INDOOR	4994A10020A	4994A10020A	4994A10020A	4994A10020A		
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10152J	4995A10152B	4995A10106X	4995A10106D		
263230	THERMISTOR ASSEMBLY	6323A30002A	6323A30002A	6323A30002A	6323A30002A		
263230	THERMISTOR ASSEMBLY	6323A30004C	6323A30004C	6323A30004C	6323A30004C		
263230	THERMISTOR ASSEMBLY	6323AQ3226T	6323AQ3226T	6323AQ3226T	6323AQ3226T		
266012	SWITCH ASSY,FLOAT	6601A20001F	6601A20001F	6601A20001F	6601A20001F		
152312	FILTER ASSY,AIR CLEANER	5231A10004A	5231A10004A	5231A10004A	5231A10004A		
152510	HOSE ASSEMBLY, DRAIN	5251AP2984A	5251AP2984A	5251AP2984A	5251AP2984A		
267110	REMOTE CONTROLLER ASSEMBLY	6711A20081M	6711A20081J	6711A20081M	6711A20081J		
268712	PWB(PCB) ASSY,DISPLAY	6871A20096C	6871A20096C	6871A20096C	6871A20096C		
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10187T	6871A10187B	6871A10148Q	6871A10148G		
330870	DRAIN PAN ASSEMBLY	3087A10006A	3087A10006A	3087A10006A	3087A10006B		
346810	MOTOR ASSEMBLY,INDOOR	4681A20006J	4681A20006J	4681A20006K	4681A20006K		
349600	MOUNT,MOTOR	4960AP7265A	4960AP7265A	4960AP7265A	4960AP7265A		
352114	TUBE ASSEMBLY, DISTRIBUTOR	5211A10299A	5211A10299A	5211A10299A	5211A10299A		
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A20251B	5211A20251B	5211A20251B	5211A20251B		
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A20251G	5211A20251G	5211A20251G	5211A20251G		
354211	EVAPORATOR ASSY,BENDING	5421A10016A	5421A10016A	5421A10016A	5421A10016A		
354211	EVAPORATOR ASSY,BENDING	5421A10016B	5421A10016B	5421A10016B	5421A10016B		
359012	FAN ASSEMBLY,TURBO	5900A10003B	5900A10003B	5900A10003B	5900A10003B		
435310	GRILLE ASSY,INLET	3531A10066A	3531A10066A	3531A10066A	3531A10066A		
55211G	TUBE ASSEMBLY, EXPANSION	5211A10298B	5211A10298B	5211A10298B	5211A10298B		
648600	CLAMP,CAPACITOR	4H00442C	4H00442C	4H00442C	4H00442C		
W0CZZ	CAPACITOR, DRAWING	2A00986D	3H00660M	2A00986D	2A00986D		
W6640	TERMINAL BLOCK	6640W3A009A	6640W3A009A	6640W3A009A	6640W3A009A		

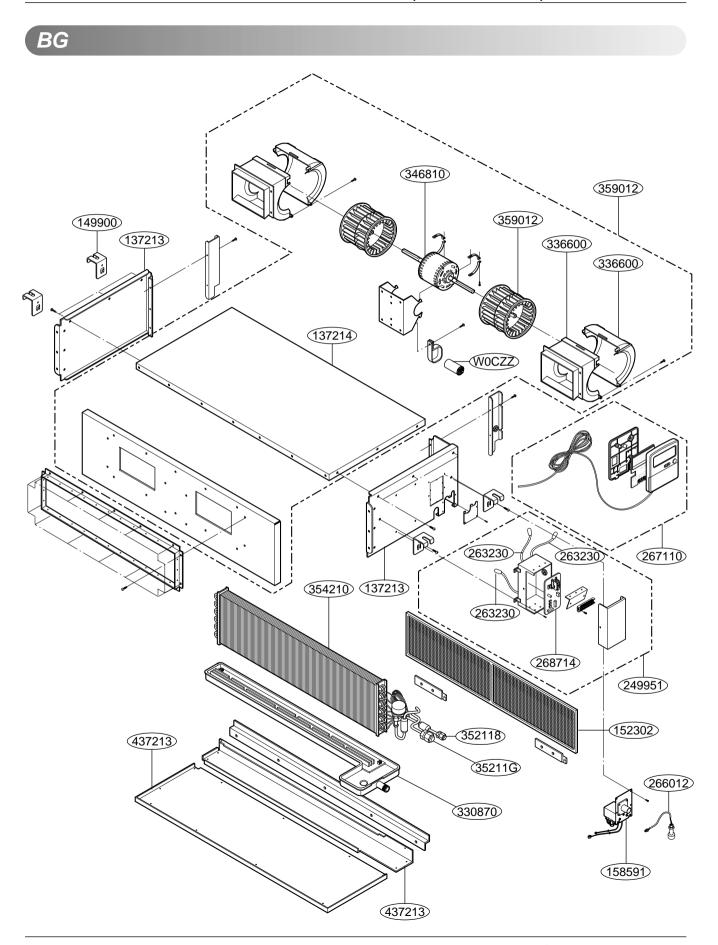
LOCATION	DESCRIPTION		PART NO.		REMARK
NO.	DESCRIPTION	LRNN386TDA0	LRNN426TDA0	LRNV482TDA0	
130412	BASE ASSEMBLY,WELD[INDOOR]	3041A10016A	3041A10016A	3041A10016A	
130911	CABINET ASSEMBLY,WELD	3091A10030A	3091A10030A	3091A10031A	
130911	CABINET ASSEMBLY,WELD	3091A10030B	3091A10030B	3091A10031B	
130911	CABINET ASSY,INDOOR	3091A10031A	3091A10031A	3091A10030A	
130911	CABINET ASSY,INDOOR	3091A10031B	3091A10031B	3091A10030B	
137211	PANEL ASSEMBLY,FRONT(INDOOR)	3721A10025A	3721A10025A	3721A10025B	
135511	COVER	3550A20050A	3550A20050A	3550A20050A	
135802	DOOR	3580A20005A	3580A20005A	3580A20005A	
140570	LOCKER	4056A20001B	4056A20001B	4056A20001B	
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	
152510	DRAIN ASSEMBLY,TUBE	5251A20002B	5251A20002B	5251A20002B	
158591	PUMP,WATER	5858A10001G	5858A10001G	5858A10001G	
158591	PUMP ASSEMBLY,WATER	5859A20001D	5859A20001D	5859A20001D	
249941	CONTROL BOX,INDOOR	4994A10020A	4994A10020A	4994A10020A	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10152C	4995A10152U	4995A10106Z	
263230	THERMISTOR ASSEMBLY	6323A30002A	6323A30002A	6323A30002A	
263230	THERMISTOR ASSEMBLY	6323A30004C	6323A30004C	6323A30004C	
263230	THERMISTOR ASSEMBLY	6323AQ3226T	6323AQ3226T	6323AQ3226T	
266012	SWITCH ASSY,FLOAT	6601A20001F	6601A20001F	6601A20001F	
152312	FILTER ASSY,AIR CLEANER	5231A10004A	5231A10004A	5231A10004A	
152510	HOSE ASSEMBLY, DRAIN	5251AP2984A	5251AP2984A	5251AP2984A	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20081J	6711A20081J	6711A20081M	
268712	PWB(PCB) ASSY,DISPLAY	6871A20096C	6871A20096C	6871A20096C	
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10187C	6871A10187F	6871A10148T	
330870	DRAIN PAN ASSEMBLY	3087A10006A	3087A10006A	3087A10006A	
346810	MOTOR ASSEMBLY,INDOOR	4681A20006J	4681A20006H	4681A20006K	
349600	MOUNT,MOTOR	4960AP7265A	4960AP7265A	4960AP7265A	
352114	TUBE ASSEMBLY, DISTRIBUTOR	5211A10299A	5211A10299A	5211A10299A	
352118	TUBE ASSEMBLY, MENIFOLD (INDOOR)	5211A20251B	5211A20251B	5211A20251B	
352118	TUBE ASSEMBLY, MENIFOLD (INDOOR)	5211A20251G	5211A20251G	5211A20251G	
354211	EVAPORATOR ASSY,BENDING	5421A10016A	5421A10016A	5421A10016A	
354211	EVAPORATOR ASSY,BENDING	5421A10016B	5421A10016B	5421A10016B	
359012	FAN ASSEMBLY,TURBO	5900A10003B	5900A10003B	5900A10003B	
435310	GRILLE ASSY,INLET	3531A10066A	3531A10066A	3531A10066A	
55211G	TUBE ASSEMBLY, EXPANSION	5211A10298B	5211A10298B	5211A10298B	
648600	CLAMP,CAPACITOR	4H00442C	4H00442C	4H00442C	
W0CZZ	CAPACITOR, DRAWING	3H00660M	2A00986D	2A00986D	
W6640	TERMINAL BLOCK	6640W3A009A	6640W3A009A	6640W3A009A	

LOCATION	DESCRIPTION	PART NO.				
NO.	DESCRIPTION	LRNV486TDA0	LRNN486TDA0	REMARI		
130412	BASE ASSEMBLY,WELD[INDOOR]	3041A10016A	3041A10016A			
130911	CABINET ASSEMBLY,WELD	3091A10030D	3091A10030A			
130911	CABINET ASSEMBLY,WELD	3091A10030E	3091A10030B			
130911	CABINET ASSY,INDOOR	3091A10031C	3091A10031A			
130911	CABINET ASSY,INDOOR	3091A10031D	3091A10031B			
137211	PANEL ASSEMBLY,FRONT(INDOOR)	3721A10025B	3721A10025A			
135511	COVER	3550A20050A	3550A20050A			
135802	DOOR	3580A20005A	3580A20005A			
140570	LOCKER	4056A20001B	4056A20001B			
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A			
152510	DRAIN ASSEMBLY,TUBE	5251A20002B	5251A20002B			
158591	PUMP,WATER	5858A10001G	5858A10001G			
158591	PUMP ASSEMBLY,WATER	5859A20001D	5859A20001D			
249941	CONTROL BOX,INDOOR	4994A10020A	4994A10020A			
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10152T	4995A10152V			
263230	THERMISTOR ASSEMBLY	6323A30002A	6323A30002A			
263230	THERMISTOR ASSEMBLY	6323A30004C	6323A30004C			
263230	THERMISTOR ASSEMBLY	6323AQ3226T	6323AQ3226T			
266012	SWITCH ASSY,FLOAT	6601A20001F	6601A20001F			
152312	FILTER ASSY,AIR CLEANER	5231A10004A	5231A10004A			
152510	HOSE ASSEMBLY, DRAIN	5251AP2984A	5251AP2984A			
267110	REMOTE CONTROLLER ASSEMBLY	6711A20081M	6711A20081J			
268712	PWB(PCB) ASSY,DISPLAY	6871A20096C	6871A20096C			
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10187W	6871A10187G			
330870	DRAIN PAN ASSEMBLY	3087A10006A	3087A10006A			
346810	MOTOR ASSEMBLY,INDOOR	4681A20006H	4681A20006H			
349600	MOUNT,MOTOR	4960AP7265A	4960AP7265A			
352114	TUBE ASSEMBLY, DISTRIBUTOR	5211A10299A	5211A10299A			
352118	TUBE ASSEMBLY, MENIFOLD (INDOOR)	5211A20251B	5211A20251B			
352118	TUBE ASSEMBLY, MENIFOLD (INDOOR)	5211A20251G	5211A20251G			
354211	EVAPORATOR ASSY,BENDING	5421A10016A	5421A10016A			
354211	EVAPORATOR ASSY,BENDING	5421A10016B	5421A10016B			
359012	FAN ASSEMBLY,TURBO	5900A10003B	5900A10003B			
435310	GRILLE ASSY,INLET	3531A10066A	3531A10066A			
55211G	TUBE ASSEMBLY, EXPANSION	5211A10298B	5211A10298B			
648600	CLAMP,CAPACITOR	4H00442C	4H00442C			
W0CZZ	CAPACITOR, DRAWING	2A00986D	3H00660M			
W6640	TERMINAL BLOCK	6640W3A009A	6640W3A009A			



LOCATION	DESCRIPTION		PAR1	ΓNO.		REMARK
NO.	DESCRIPTION	LRNV182BHA0	LRNV212BHA0	LRNV242BHA0	LRNV246BHA0	IVEIII/III
359012	FAN ASSEMBLY,BLOWER	5901A10028T	5901A10028T	5901A10028T	5901A10028T	
336600	HOUSING (MECH),WRAPPER	3660A20017A	3660A20017A	3660A20017A	3660A20017A	
336600	HOUSING (MECH),WRAPPER	3660A20018A	3660A20018A	3660A20018A	3660A20018A	
346810	MOTOR ASSEMBLY,INDOOR	4681A10013C	4681A10013C	4681A10013C	4681A10013C	
359012	FAN ASSEMBLY,BLOWER	5901A10026A	5901A10026A	5901A10026A	5901A10026A	
W0CZZ	CAPACITOR, DRAWING	2A00986D	2A00986D	2A00986D	2A00986D	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20100B	5421A20100B	5421A20100B	5421A20100B	
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A20465D	5211A20465D	5211A20465D	5211A20465D	
352115	TUBE ASSEMBLY, EVAPORATOR IN	5211A10305A	5211A10305A	5211A10305A	5211A10305A	
330870	DRAIN PAN ASSEMBLY	3087A10008D	3087A10008D	3087A10008D	3087A10008D	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10127K	4995A10127L	4995A10127M	4995A10127N	
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10166G	6871A10166H	6871A10166J	6871A10127N	
263230	THERMISTOR ASSY	6323AQ3226G	6323AQ3226G	6323AQ3226G	6323AQ3226G	
263230	THERMISTOR ASSEMBLY	6323A30004D	6323A30004D	6323A30004D	6323A30004D	
263230	THERMISTOR ASSEMBLY	6323AQ3226W	6323AQ3226W	6323AQ3226W	6323AQ3226W	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20043E	6711A20043E	6711A20043E	6711A20043E	
152302	FILTER(MECH),A/C	5230A30001M	5230A30001M	5230A30001M	5230A30001M	
158591	PUMP ASSEMBLY,WATER	5859A20002A	5859A20002A	5859A20002A	5859A20002A	
266012	SWITCH ASSEMBLY,FLOAT	6601A20001E	6601A20001E	6601A20001E	6601A20001E	
137214	PANEL ASSEMBLY,UPPER	3721A20177C	3721A20177C	3721A20177C	3721A20177C	
137213	PANEL ASSEMBLY,SIDE	3721A20178C	3721A20178C	3721A20178C	3721A20178C	
137213	PANEL ASSEMBLY,SIDE	3721A20179D	3721A20179D	3721A20179D	3721A20179D	
437213	PANEL ASSEMBLY, REAR (INDOOR)	3721A21004C	3721A21007C	3721A21010C	3721A21004C	
437213	PANEL ASSEMBLY, REAR (INDOOR)	3721A21005C	3721A21005C	3721A21005C	3721A21005C	
149900	HANGER	4990A20004A	4990A20004A	4990A20004A	4990A20004A	

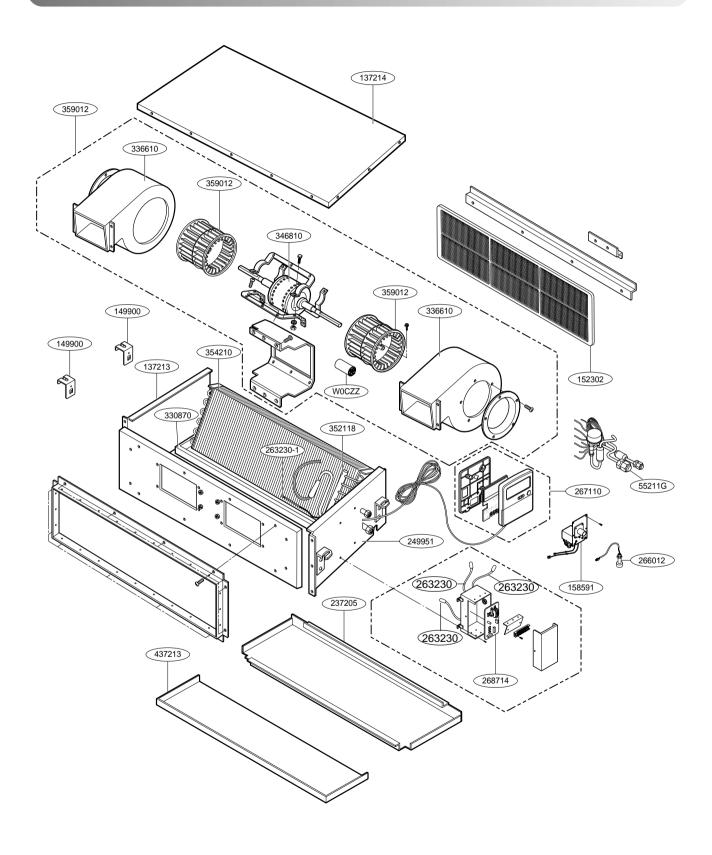
LOCATION	DESCRIPTION	PART NO.					REMARK
NO.	DESCRIPTION	LRNN182BHA0	LRNN186BHA0	LRNN212BHA0	LRNN242BHA0	LRNN246BHA0	NEWANN
359012	FAN ASSEMBLY,BLOWER	5901A10028T	5901A10028T	5901A10028T	5901A10028T	5901A10028T	
336600	HOUSING (MECH), WRAPPER	3660A20017A	3660A20017A	3660A20017A	3660A20017A	3660A20017A	
336600	HOUSING (MECH), WRAPPER	3660A20018A	3660A20018A	3660A20018A	3660A20018A	3660A20018A	
346810	MOTOR ASSEMBLY,INDOOR	4681A10013C	4681A10013C	4681A10013C	4681A10013C	4681A10013C	
359012	FAN ASSEMBLY,BLOWER	5901A10026A	5901A10026A	5901A10026A	5901A10026A	5901A10026A	
W0CZZ	CAPACITOR, DRAWING	2A00986D	2A00986D	2A00986D	2A00986D	2A00986D	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20100B	5421A20100B	5421A20100B	5421A20100B	5421A20100B	
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A20465D	5211A20465D	5211A20465D	5211A20465D	5211A20465D	
352115	TUBE ASSEMBLY, EVAPORATOR IN	5211A10305A	5211A10305A	5211A10305A	5211A10305A	5211A10305A	
330870	DRAIN PAN ASSEMBLY	3087A10008D	3087A10008D	3087A10008D	3087A10008D	3087A10008D	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10127C	4995A10127X	4995A10127D	4995A10127E	4995A10127Y	
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10166A	6871A10217A	6871A10166B	6871A10166C	6871A10217B	
263230	THERMISTOR ASSY	6323AQ3226G	6323AQ3226G	6323AQ3226G	6323AQ3226G	6323AQ3226G	
263230	THERMISTOR ASSEMBLY	6323A30004D	6323A30004D	6323A30004D	6323A30004D	6323A30004D	
263230	THERMISTOR ASSEMBLY	6323AQ3226W	6323AQ3226W	6323AQ3226W	6323AQ3226W	6323AQ3226W	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20043D	6711A20043Q	6711A20043D	6711A20043D	6711A20043D	
152302	FILTER(MECH),A/C	5230A30001M	5230A30001M	5230A30001M	5230A30001M	5230A30001M	
158591	PUMP ASSEMBLY, WATER	5859A20002A	5859A20002A	5859A20002A	5859A20002A	5859A20002A	
266012	SWITCH ASSEMBLY,FLOAT	6601A20001E	6601A20001E	6601A20001E	6601A20001E	6601A20001E	
137214	PANEL ASSEMBLY,UPPER	3721A20177C	3721A20177C	3721A20177C	3721A20177C	3721A20177C	
137213	PANEL ASSEMBLY,SIDE	3721A20178C	3721A20178C	3721A20178C	3721A20178C	3721A20178C	
137213	PANEL ASSEMBLY,SIDE	3721A20179D	3721A20179D	3721A20179D	3721A20179D	3721A20179D	
437213	PANEL ASSEMBLY,REAR(INDOOR)	3721A21004C	3721A21004C	3721A21004C	3721A21004C	3721A21004C	
437213	PANEL ASSEMBLY,REAR(INDOOR)	3721A21005C	3721A21005C	3721A21005C	3721A21005C	3721A21005C	
149900	HANGER	4990A20004A	4990A20004A	4990A20004A	4990A20004A	4990A20004A	



LOCATION	DESCRIPTION		PAR	ΓNO.		REMARK
NO.	22001 11011	LRNV282BGA0	LRNV382BGA0	LRNN286BGA0	LRNN366BGA0	IXEMPAKK
359012	FAN ASSEMBLY,BLOWER	5901A10028U	5901A10028A	5901A10028V	5901A10028U	
336600	HOUSING (MECH),WRAPPER	3660A20019A	3660A20019A	3660A20019A	3660A20019A	
336600	HOUSING (MECH),WRAPPER	3660A20020A	3660A20020A	3660A20020A	3660A20020A	
346810	MOTOR ASSEMBLY,INDOOR	4681A10013P	4681A10013A	4681A10013A	4681A10013P	
359012	FAN ASSEMBLY,BLOWER	5901A10026A	5901A10026A	5901A10026A	5901A10026A	
W0CZZ	CAPACITOR, DRAWING	2A00986D	2A00986D	2A00986D	2A00986D	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A10027C	5421A10027C	5421A10027C	5421A10027C	
352118	TUBE ASSEMBLY, MENIFOLD (INDOOR)	5211A20416G	5211A20416H	5211A20416G	5211A20416G	
55211G	TUBE ASSEMBLY, EXPANSION	5211A10426A	5211A10426B	5211A10426A	5211A10426A	
330870	DRAIN PAN ASSEMBLY	3087A10008C	3087A10008C	3087A10008C	3087A10008C	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10127N	4995A10127U	4995A10173C	4995A10127Z	
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10166K	6871A10166M	6871A10217C	6871A10217D	
263230	THERMISTOR ASSY	6323AQ3226G	6323AQ3226G	6323AQ3226G	6323AQ3226G	
263230	THERMISTOR ASSEMBLY	6323A30004D	6323A30004D	6323A30004D	6323A30004D	
263230	THERMISTOR ASSEMBLY	6323AQ3226W	6323AQ3226W	6323AQ3226W	6323AQ3226W	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20043E	6711A20043E	6711A20043D	6711A20043Q	
152302	FILTER(MECH),A/C	5230A30001L	5230A30001L	5230A30001L	5230A30001L	
158591	PUMP ASSEMBLY,WATER	5859A20002A	5859A20002A	5859A20002A	5859A20002A	
266012	SWITCH ASSEMBLY,FLOAT	6601A20001E	6601A20001E	6601A20001E	6601A20001E	
137214	PANEL ASSEMBLY,UPPER	3721A20180C	3721A20180C	3721A20180C	3721A20180C	
137213	PANEL ASSEMBLY,SIDE	3721A20181C	3721A20181C	3721A20181C	3721A20181C	
137213	PANEL ASSEMBLY,SIDE	3721A20183C	3721A20183C	3721A20183C	3721A20183C	
437213	PANEL ASSEMBLY, REAR (INDOOR)	3721A2006C	3721A2006C	3721A21006C	3721A21006C	
437213	PANEL ASSEMBLY, REAR (INDOOR)	3721A2007C	3721A2007C	3721A21007C	3721A21007C	
149900	HANGER	4990A20004A	4990A20004A	4990A20004A	4990A20004A	

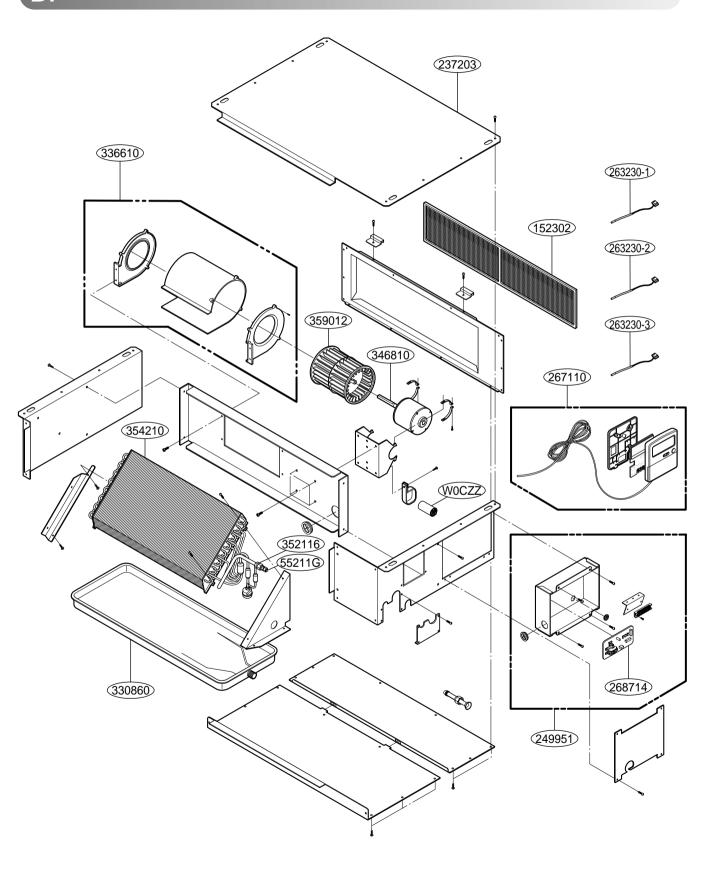
LOCATION	DESCRIPTION	PAR	PART NO.				
NO.	DESCRIPTION	LRNN426BGA0	LRNN362BGA0	REMARK			
359012	FAN ASSEMBLY,BLOWER	5901A10028V	5901A10028V				
336600	HOUSING (MECH), WRAPPER	3660A20019A	3660A20019A				
336600	HOUSING (MECH), WRAPPER	3660A20020A	3660A20020A				
346810	MOTOR ASSEMBLY,INDOOR	4681A10013A	4681A10013A				
359012	FAN ASSEMBLY,BLOWER	5901A10026A	5901A10026A				
W0CZZ	CAPACITOR, DRAWING	2A00986D	2A00986D				
354210	EVAPORATOR ASSEMBLY,FIRST	5421A10027C	5421A10027C				
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A20416G	5211A20416G				
55211G	TUBE ASSEMBLY, EXPANSION	5211A10426A	5211A10426A				
330870	DRAIN PAN ASSEMBLY	3087A10008C	3087A10008C				
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10127W	4995A10127W				
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10166E	6871A10166E				
263230	THERMISTOR ASSY	6323AQ3226G	6323AQ3226G				
263230	THERMISTOR ASSEMBLY	6323A30004D	6323A30004D				
263230	THERMISTOR ASSEMBLY	6323AQ3226W	6323AQ3226W				
267110	REMOTE CONTROLLER ASSEMBLY	6711A20043D	6711A20043D				
152302	FILTER(MECH),A/C	5230A30001L	5230A30001L				
158591	PUMP ASSEMBLY,WATER	5859A20002A	5859A20002A				
266012	SWITCH ASSEMBLY,FLOAT	6601A20001E	6601A20001E				
137214	PANEL ASSEMBLY,UPPER	3721A20180C	3721A20180C				
137213	PANEL ASSEMBLY,SIDE	3721A20181C	3721A20181C				
137213	PANEL ASSEMBLY,SIDE	3721A20183C	3721A20183C				
437213	PANEL ASSEMBLY,REAR(INDOOR)	3721A21006C	3721A21006C				
437213	PANEL ASSEMBLY,REAR(INDOOR)	3721A21007C	3721A21007C				
149900	HANGER	4990A20004A	4990A20004A				

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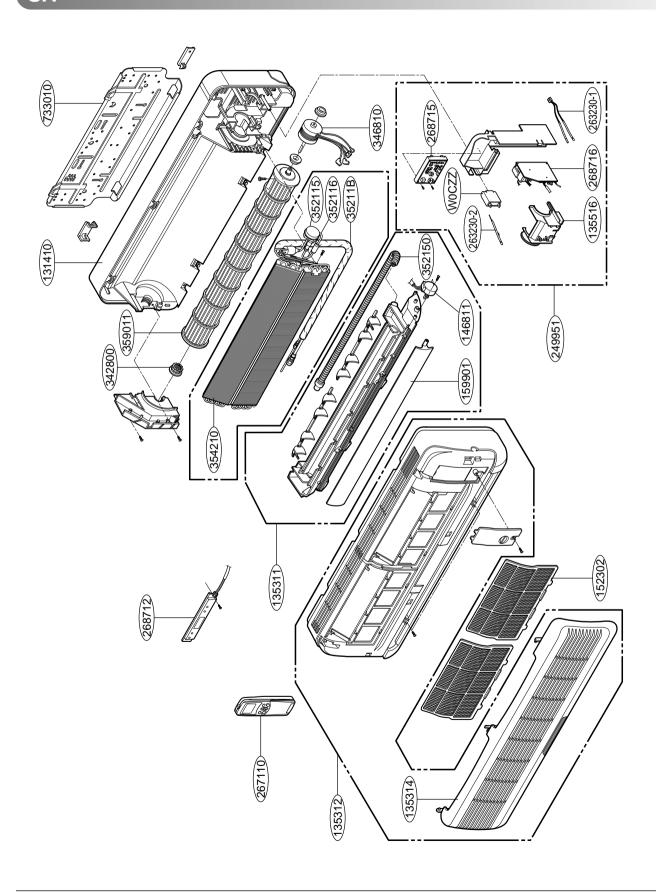
LOCATIONING	DECODIDATION	PAR	PART No.			
LOCATION No.	DESCRIPTION	LRNN486BEA0	LRNV482BEA0	- REMARK		
359012	FAN ASSEMBLY,BLOWER	5901A20001F	5901A20001E			
336610	HOUSING ASSY (MECH)	3661A10009E	3661A20001E			
336610	HOUSING ASSY (MECH)	3661A10009F	3661A20001F			
346810	MOTOR ASSEMBLY,INDOOR	4681A20005K	4681A20005J			
W0CZZ	CAPACITOR, DRAWING	0CZZA20001C	0CZZA20001C			
359012	FAN ASSEMBLY,BLOWER	5901A10015E	5833A20001A			
359012	FAN ASSEMBLY,BLOWER	5901A10015F	5833A20001B			
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20008A	5421A20008A			
352118	TUBE ASSEMBLY,MENIFOLD(INDOOR)	5211A30076B	5211A30076B			
55211G	TUBE ASSEMBLY, EXPANSION	5211A10416B	5211A10416B			
330870	DRAIN PAN ASSEMBLY	3087A20023A	3087A20023A			
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10127T	4995A10127P			
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10167D	6871A10167B			
263230	THERMISTOR ASSY	6323AQ3226G	6323AQ3226G			
263230	THERMISTOR ASSEMBLY	6323A30004D	6323A30004D			
263230	THERMISTOR ASSEMBLY	6323AQ3226W	6323AQ3226W			
267110	REMOTE CONTROLLER ASSEMBLY	6711A10002D	6711A20043E			
152302	FILTER(MECH),A/C	5230A30001A	5230A30001A			
158591	PUMP ASSEMBLY,WATER	5859A10002A	5859A10002A			
266012	SWITCH ASSEMBLY,FLOAT	6601A20001E	6601A20001E			
137214	PANEL ASSEMBLY,UPPER	3721A20184A	3721A20184A			
137213	PANEL ASSEMBLY,SIDE	3721A20185A	3721A20185A			
137213	PANEL ASSEMBLY,SIDE	3721A20186A	3721A20186A			
437213	PANEL ASSEMBLY, REAR (INDOOR)	3721A21008A	3721A21008A			
237205	PANEL REAR	3720A30011A	3720A30011A			
149900	HANGER	4990AP7280E	4990AP7280E			
149900	HANGER	4990AP7280F	4990AP7280F			

BT



LOCATION No.	DESCRIPTION		PART No.	REMARK	
LOCATION NO.	DESCRIPTION	LRNN076BTG0	LRNN096BTG0	LRNN126BTG0	KEWAKK
152302	FILTER(MECH),A/C	5230A30001Q	5230A30001Q	5230A30001Q	
158580	PUMP ASSEMBLY,WATER	5859A10005A	5859A10005A	5859A10005A	
237203	PANEL ASSEMBLY,UPPER	3721A20150B	3721A20150B	3721A20150B	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A20514C	4995A20514D	4995A20514E	
263230	THERMISTOR ASSEMBLY	6323A30004D	6323A30004D	6323A30004D	
263230	THERMISTOR ASSEMBLY	6323AQ3226G	6323AQ3226G	6323AQ3226G	
263230	THERMISTOR ASSEMBLY	6323AQ3226W	6323AQ3226W	6323AQ3226W	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20043D	6711A20043D	6711A20043D	
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10217F	6871A10217G	6871A10217H	
330870	DRAIN PAN ASSEMBLY	3087A10015C	3087A10015C	3087A10015C	
336610	HOUSING ASSEMBLY (MECH)	3661A20025A	3661A20025A	3661A20025A	
346810	MOTOR ASSEMBLY,INDOOR	4681A10022B	4681A10022B	4681A10022B	
352116	TUBE ASSEMBLY, EVAPORATOR OUT	5211A10418E	5211A10418E	5211A10418E	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20153B	5421A20153B	5421A20153B	
359012	FAN ASSEMBLY,BLOWER	5901A20030A	5901A20030A	5901A20030A	
55211G	TUBE ASSEMBLY, EXPANSION	5211A10508A	5211A10508A	5211A10508A	
WOCZZ	CAPACITOR, DRAWING	3A02157H	3A02157H	3A02157H	

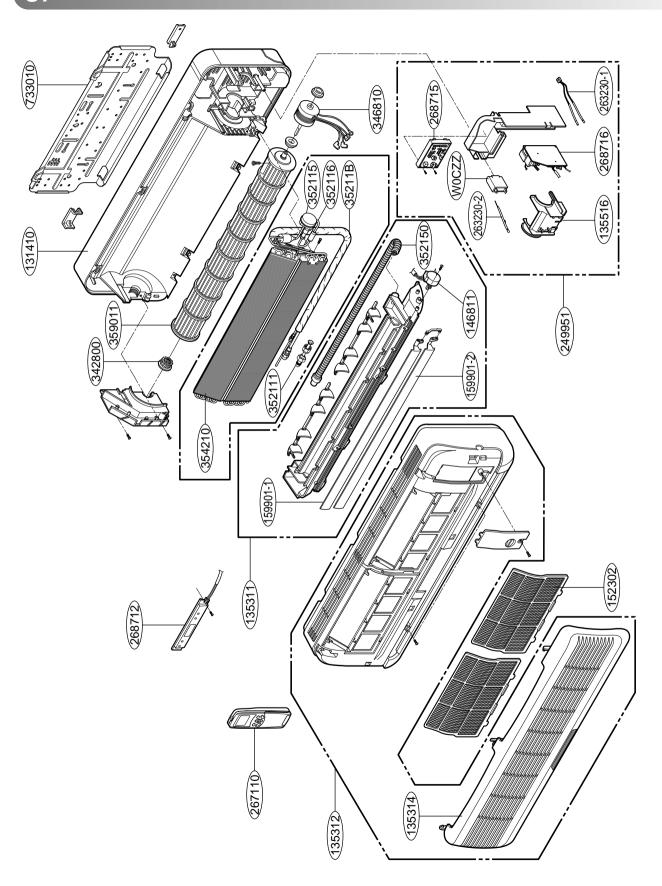
LOCATION No.	DESCRIPTION	PAR	REMARK	
LOCATION NO.	DESCRIPTION	LRNV092BTQ0	LRNV122BTQ0	REWARK
152302	FILTER(MECH),A/C	5230A30001Q	5230A30001Q	
158580	PUMP ASSEMBLY,WATER	5859A10005A	5859A10005A	
159830	AIR CLEANER ASSEMBLY	5983A10003A	5983A10002A	
237203	PANEL ASSEMBLY,UPPER	3721A20150B	3721A20150B	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A20338X	4995A20338W	
263230	THERMISTOR ASSEMBLY	6323A30004D	6323A30004D	
263230	THERMISTOR ASSEMBLY	6323AQ3226G	6323AQ3226G	
263230	THERMISTOR ASSEMBLY	6323AQ3226W	6323AQ3226W	
266090	H.V ASSEMBLY	6609A20005G	6609A20005G	
267110	REMOTE CONTROLLER ASSEMBLY	6711A10008C	6711A10008C	
268714	PWB(PCB) ASSEMBLY,MAIN	6871A10166P	6871A10166Q	
330870	DRAIN PAN ASSEMBLY	3087A10015C	3087A10015C	
336610	HOUSING ASSEMBLY (MECH)	3661A20025A	3661A20025A	
346810	MOTOR ASSEMBLY,INDOOR	4681A10022B	4681A10022B	
352116	TUBE ASSEMBLY, EVAPORATOR OUT	5211A10418E	5211A10418E	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20153B	5421A20153B	
359012	FAN ASSEMBLY,BLOWER	5901A20030A	5901A20030A	
55211G	TUBE ASSEMBLY, EXPANSION	5211A10508A	5211A10508A	
WOCZZ	CAPACITOR, DRAWING	3A02157H	3A02157H	



LOCATION	DESCRIPTION	PART NO.				
NO.	DEGGINI HON	LRNN076SRA0	LRNN096SRA0	LRNN126SRA0	LRNV126SRA0	REMARK
131410	CHASSIS ASSEMBLY	3141A20005E	3141A20005E	3141A20005E	3141A20005E	
346810	MOTOR ASSEMBLY,INDOOR	4681A20048J	4681A20048J	4681A20048L	4681A20048L	
135516	COVER ASSEMBLY,MOTOR	3551A20050A	3551A20050A	3551A20050A	3551A20050A	
342800	BEARING	4280A20004A	4280A20004A	4280A20004A	4280A20004A	
359011	FAN ASSEMBLY, CROSS FLOW	5901A20007A	5901A20007A	5901A20007A	5901A20007A	
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A10192E	3531A10192E	3531A10192E	3531A10192E	
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055A	
159901	VANE,HORIZONTAL	5990A20007A	5990A20007A	5990A20007A	5990A20007A	
268712	PWB(PCB)ASSEMBLY,DISPLAY	6871A20227J	6871A20227J	6871A20227J	6871A20227J	
352150	HOSE ASSEMBLY, DRAIN	5251AR2575F	5251AR2575F	5251AR2575F	5251AR2575F	
35211B	TUBE ASSEMBLY, TUBING	5211A10324A	5211A10324A	5211A10324A	5211A10324A	
263230	THERMISTOR ASSEMBLY(ROOM,PIPE IN)	6323A20004M	6323A20004M	6323A20004M	6323A20004M	
263230	THERMISTOR ASSEMBLY(PIPE-OUT)	6323AQ3226Z	6323AQ3226Z	6323AQ3226Z	6323AQ3226Z	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A12003Q	4995A20274W	4995A20274X	4995A12003N	
268715	PWB(PCB)ASSEMBLY,MAIN(AC)	6871A20274A	6871A20274A	6871A20274A	6871A20274A	
268716	PWB(PCB)ASSEMBLY,MAIN(DC)	6871A20581F	6871A20581G	6871A20581H	6871A20581S	
W0CZZ	CAPACITOR, DRAWING	3H01487A	3H01487A	3H01487A	3H01487A	
135312	GRILL ASSEMBLY,FRONT(INDOOR)	3531A10118W	3531A10118W	3531A10118W	3531A10208Y	
135314	GRILL ASSEMBLY,INLET SUB	3531A10117U	3531A10117U	3531A10117U	3531A10283E	
152302	FILTER(MECH),A/C	5230A20014C	5230A20014C	5230A20014C	5230A20014C	
733010	PLATE	1H00843A	1H00843A	1H00843A	1H00843A	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20010B	6711A20010B	6711A20010B	6711A20010A	
352115	TUBE ASSEMBLY, EVAPORATOR IN	5211A10310A	5211A10310A	5211A10310A	5211A10310A	
352116	TUBE ASSEMBLY, EVAPORATOR OUT	5211A20911A	5211A20911A	5211A20911A	5211A20911A	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20086C	5421A20086C	5421A20086C	5421A20086A	

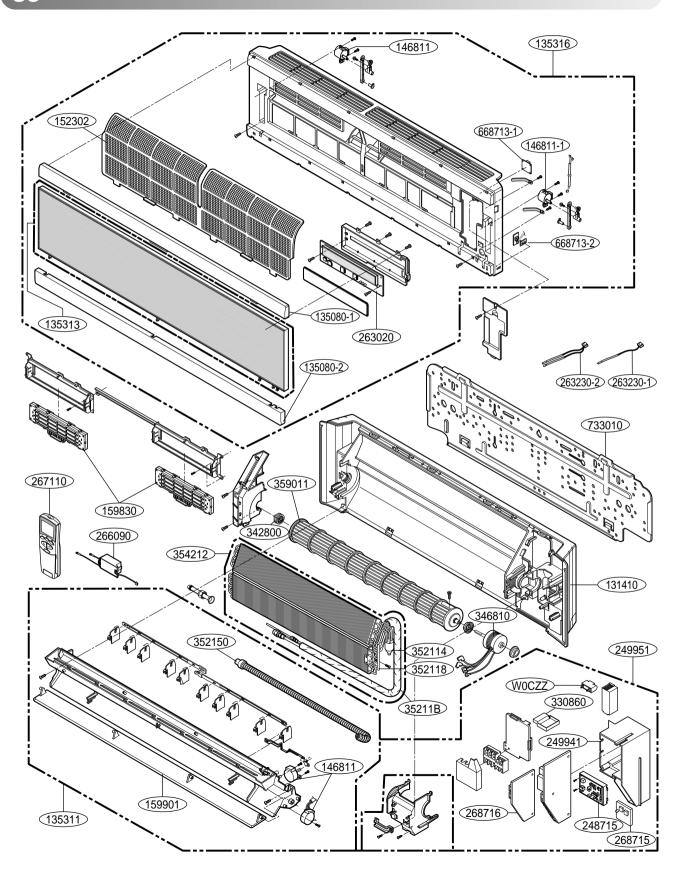
LOCATION No	DESCRIPTION	PAR	T No.	REMARK
LOCATION No.	DESCRIPTION	LRNN092SRA0	LRNN122SRA0	REWARK
131410	CHASSIS ASSEMBLY	3141A20005E	3141A20005E	
346810	MOTOR ASSEMBLY,INDOOR	4681A20048C	4681A20048C	
135516	COVER ASSEMBLY,MOTOR	3551A20050A	3551A20050A	
342800	BEARING	4280A20004A	4280A20004A	
359011	FAN ASSEMBLY, CROSS FLOW	5901A20007A	5901A20007A	
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A10192E	3531A10192E	
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	
159901	VANE,HORIZONTAL	5990A20007A	5990A20007A	
268712	PWB(PCB)ASSEMBLY,DISPLAY	6871A20227J	6871A20227J	
352150	HOSE ASSEMBLY, DRAIN	5251AR2575F	5251AR2575F	
35211B	TUBE ASSEMBLY, TUBING	5211A10324A	5211A10324A	
263230	THERMISTOR ASSEMBLY(ROOM,PIPE IN)	6323A20004M	6323A20004M	
263230	THERMISTOR ASSEMBLY(PIPE-OUT)	6323AQ3226Z	6323AQ3226Z	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A20274S	4995A20274T	
268715	PWB(PCB)ASSEMBLY,MAIN(AC)	6871A20274A	6871A20274A	
268716	PWB(PCB)ASSEMBLY,MAIN(DC)	6871A20581A	6871A20581B	
W0CZZ	CAPACITOR, DRAWING	3H01487A	3H01487A	
135312	GRILL ASSEMBLY,FRONT(INDOOR)	3531A10118W	3531A10118W	
135314	GRILL ASSEMBLY,INLET SUB	3531A10117U	3531A10117U	
152302	FILTER(MECH),A/C	5230A20014C	5230A20014C	
733010	PLATE	1H00843A	1H00843A	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20010B	6711A20010B	
352115	TUBE ASSEMBLY, EVAPORATOR IN	5211A10310A	5211A10310A	
352116	TUBE ASSEMBLY, EVAPORATOR OUT	5211A20911A	5211A20911A	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20086A	5421A20086A	

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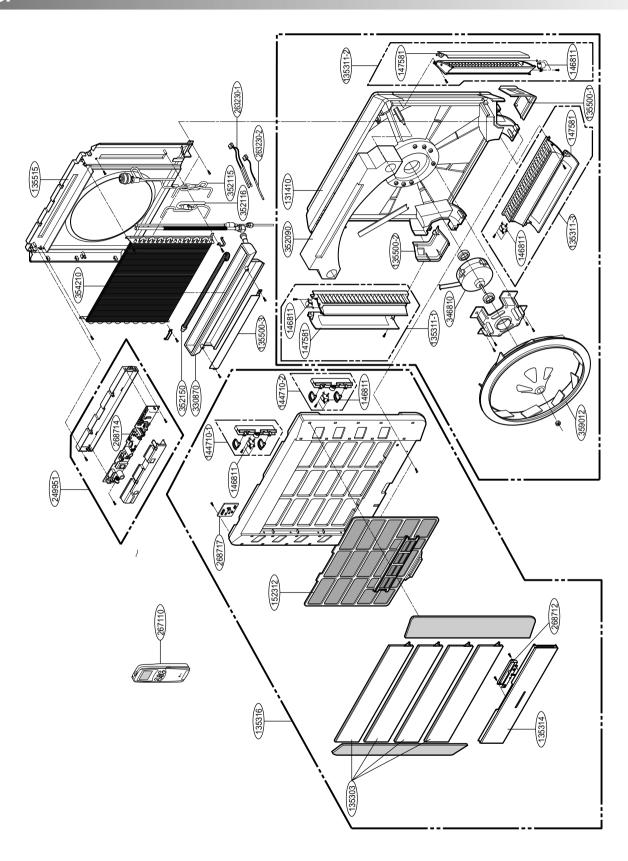
LOCATION	DESCRIPTION	PART NO.				REMARK
NO.	DESCINI HON	LRNN186STA0	LRNN182STA0	LRNV186STA0	LRNV182STL0	TILINAKIN
131410	CHASSIS ASSEMBLY	3141A10002A	3141A10002A	3141A10002A	3141A10002A	
346810	MOTOR ASSEMBLY,INDOOR	4681A20003D	4681A20003B	4681A20003D	4681A20003B	
135516	COVER ASSEMBLY,MOTOR	3551A20099C	3551A20099C	3551A20099C	3551A20099C	
342800	BEARING	4280A20004A	4280A20004A	4280A20004A	4280A20004A	
359011	FAN ASSEMBLY, CROSS FLOW	5901A20008A	5901A20008A	5901A20008A	5901A20008A	
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A10231Y	3531A10231Y	3531A10231Y	3531A10231Y	
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055A	
159901	VANE,HORIZONTAL	5990A20008A	5990A20008A	5990A20008A	5990A20008A	
159901	VANE,HORIZONTAL	5990A20009A	5990A20009A	5990A20009A	5990A20009A	
268712	PWB(PCB)ASSEMBLY,DISPLAY	6871A20227M	6871A20227M	6871A20227M	6871A20227M	
352150	HOSE ASSEMBLY, DRAIN	5251AR2575F	5251AR2575F	5251AR2575F	5251AR2575F	
35211B	TUBE ASSEMBLY, TUBING	5211A10324B	5211A10324B	5211A10324B	5211A10324B	
263230	THERMISTOR ASSEMBLY(ROOM,PIPE IN)	6323A20004M	6323A20004M	6323A20004M	6323A20004M	
263230	THERMISTOR ASSEMBLY(PIPE-OUT)	6323AQ3226Z	6323AQ3226Z	6323AQ3226Z	6323AQ3226Z	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A20274Y	4995A20274U	4995A12003M	4995A20274V	
268715	PWB(PCB)ASSEMBLY,MAIN(AC)	6871A20274A	6871A20274A	6871A20274A	6871A20274A	
268716	PWB(PCB)ASSEMBLY,MAIN(DC)	6871A20581J	6871A20581C	6871A20581T	6871A20581P	
W0CZZ	CAPACITOR, DRAWING	3H01487G	3H01487G	3H01487G	3H01487G	
135312	GRILL ASSEMBLY,FRONT(INDOOR)	3531A20207H	3531A20207H	3531A20207M	3531A20207N	
135314	GRILL ASSEMBLY,INLET SUB	3531A20107L	3531A20107L	3531A20233E	3531A20233E	
152302	FILTER(MECH),A/C	5230A20001A	5230A20001A	5230A20001A	5230A20001A	
733010	PLATE	3301A10002A	3301A10002A	3301A10002A	3301A10002A	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20010B	6711A20010B	6711A20010A	6711A20010E	
352115	TUBE ASSEMBLY, EVAPORATOR IN	5211A14006B	5211A14006B	5211A14006B	5211A14006B	
352116	TUBE ASSEMBLY, EVAPORATOR OUT	5211A30057E	5211A30057E	5211A30057E	5211A30057E	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20010E	5421A20010D	5421A20010D	5421A20010D	

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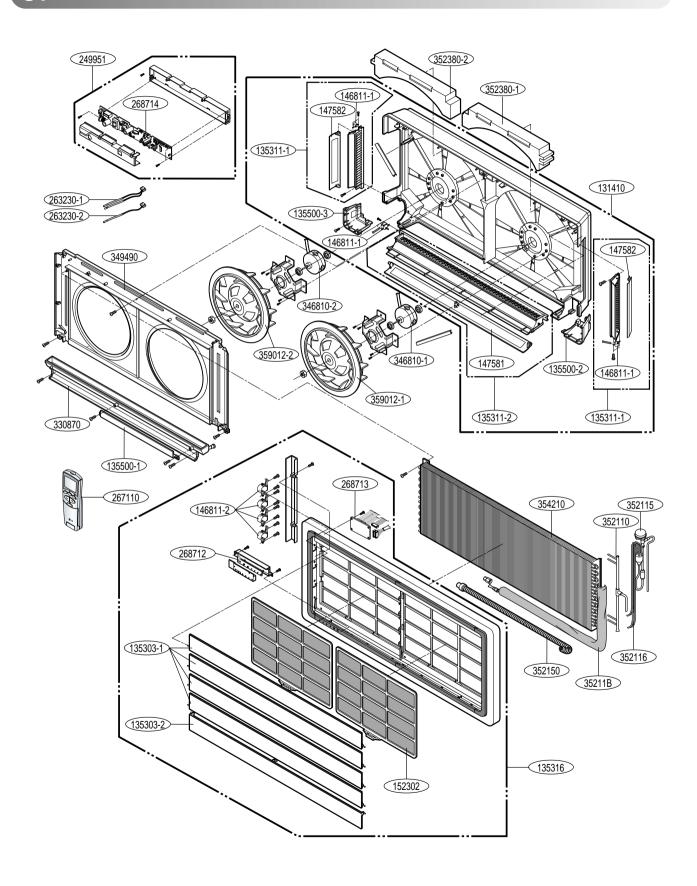


LOCATION	DESCRIPTION	PART NO.				
NO.	DESCRIPTION	LRNV072SUD0	LRNV092SUD0	LRNV122SUD0	LRNN126SUR0	REMARK
131410	CHASSIS ASSEMBLY	3141A20007E	3141A20007E	3141A20007E	3141A20007E	
346810	MOTOR ASSEMBLY,INDOOR	4681A20048F	4681A20048F	4681A20048F	4681A20048L	
342800	BEARING	4280A20004A	4280A20004A	4280A20004A	4280A20004A	
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A10137B	3531A10137B	3531A10137B	3531A10137B	
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055B	
159901	VANE,HORIZONTAL	5990A20015B	5990A20015B	5990A20015B	5990A20015B	
352150	HOSE ASSEMBLY, DRAIN	5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	
359011	FAN ASSEMBLY,CROSS FLOW	5901A20016A	5901A20016A	5901A20016A	5901A20016A	
354212	EVAPORATOR ASSEMBLY,FINAL	5421A20105M	5421A20105M	5421A20105M	5421A20105M	
35211B	TUBE ASSEMBLY, TUBING	5211A10324C	5211A10324C	5211A10324C	5211A10324C	
35211B	TUBE ASSEMBLY, TUBING	5211A20774C	5211A20774C	5211A20774C	5211A20774C	
352114	TUBE ASSEMBLY, EVAPORATOR IN	5211A14011A	5211A14011A	5211A14011A	5211A14011A	
159830	AIR CLEANER ASSEMBLY	5983A10006U	5983A10006U	5983A10006U	5983A10006U	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A12003R	4995A12003S	4995A12003T	4995A12003L	
249941	CONTROL BOX,INDOOR	4994A10047A	4994A10047A	4994A10047A	4994A10047A	
268715	PWB(PCB) ASSEMBLY,MAIN(AC)	6871A20274A	6871A20274A	6871A20274A	6871A20274A	
268716	PWB(PCB) ASSEMBLY,MAIN(DC)	6871A20172V	6871A20172X	6871A20172E	6871A20172J	
263230	THERMISTOR ASSEMBLY	6323A20004M	6323A20004M	6323A20004M	6323A20004M	
W0CZZ	CAPACITOR, DRAWING	3H01487A	3H01487A	3H01487A	3H01487A	
330860	DRAIN PAN	3086A20015A	3086A20015A	3086A20015A	3086A20015A	
263230	THERMISTOR ASSEMBLY	6323AQ3226Z	6323AQ3226Z	6323AQ3226Z	6323AQ3226Z	
135316	GRILLE ASSEMBLY,FRONT(INDOOR)	3531A21026L	3531A21026L	3531A21026L	3531A21026L	
135313	GRILLE ASSEMBLY,INLET	3531A10331B	3531A10331B	3531A10331B	3531A10391A	
263020	LCD MODULE	6306A90005A	6306A90005A	6306A90005A	6306A90005A	
135080	DECORATION	3508A20034E	3508A20034E	3508A20034E	3508A20034E	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20259A	6871A20259A	6871A20259A	6871A20259A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20258B	6871A20258B	6871A20258B	6871A20258B	
146811	MOTOR ASSEMBLY,STEP	4681A20055B	4681A20055B	4681A20055B	4681A20055B	
152302	FILTER(MECH),A/C	5230A20022A	5230A20022A	5230A20022A	5230A20022A	
733010	PLATE	1H00843A	1H00843A	1H00843A	1H00843A	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20077U	6711A20077U	6711A20077U	6711A20077U	
266090	H.V ASSEMBLY	6609A10005A	6609A10005A	6609A10005A	6609A10005A	

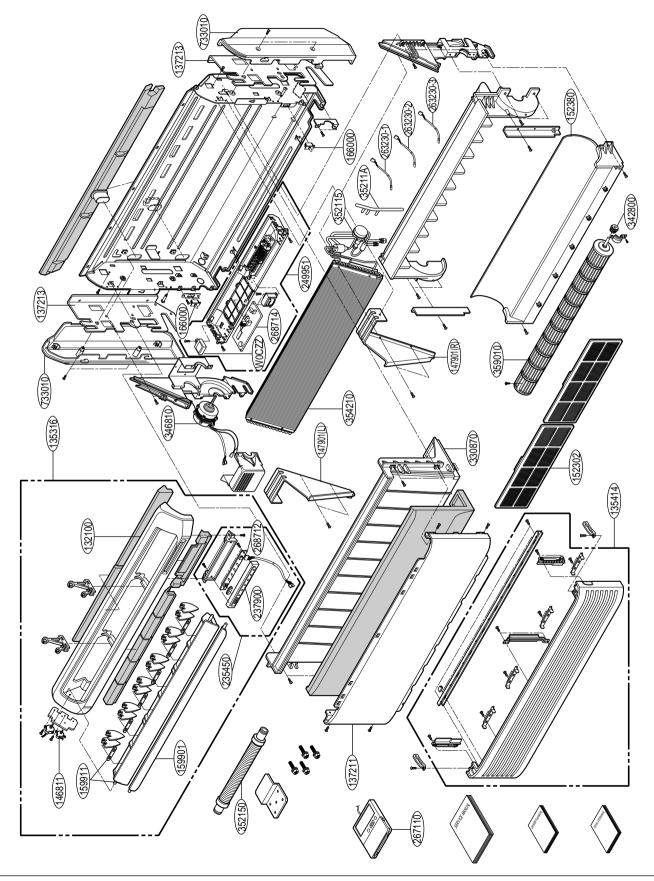
LOCATION No	DESCRIPTION	PAR	T No.	REMARK
LOCATION No.	DESCRIPTION	LRNV182S3D0	LRNN186S3R0	REWIARK
131410	CHASSIS ASSEMBLY	3141A20012A	3141A20012A	
346810	MOTOR ASSEMBLY,INDOOR	4681A20003B	4681A20067A	
342800	BEARING	4280A20004A	4280A20004A	
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A20231C	3531A20231C	
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	
159901	VANE,HORIZONTAL	5990A20042B	5990A20042B	
352150	HOSE ASSEMBLY, DRAIN	5251AR1222R	5251AR1222R	
359011	FAN ASSEMBLY,CROSS FLOW	5901A20017C	5901A20017C	
354212	EVAPORATOR ASSEMBLY,FINAL	5421A21004W	5421A20211B	
35211B	TUBE ASSEMBLY, TUBING	5211A30439Y	5211A30439D	
352114	TUBE ASSEMBLY, EVAPORATOR IN	5211A14006B	5211A14006B	
159830	AIR CLEANER ASSEMBLY	5983A10006U	5983A10006X	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A12003U	4995A12003P	
249941	CONTROL BOX,INDOOR	4994A10047A	4994A10047A	
268715	PWB(PCB) ASSEMBLY,MAIN(AC)	6871A20274A	6871A20274A	
268716	PWB(PCB) ASSEMBLY,MAIN(DC)	6871A20172T	6871A20172K	
263230	THERMISTOR ASSEMBLY	6323A20004M	6323A20004M	
W0CZZ	CAPACITOR, DRAWING	3H01487A	3H01487A	
330860	DRAIN PAN	3086A12001A	3086A12001A	
135316	GRILLE ASSEMBLY,FRONT(INDOOR)	3531A20263Y	3531A20263A	
135313	GRILLE ASSEMBLY,INLET	3531A20244C	3531A20244C	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20259A	6871A20259A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20258B	6871A20258C	
152302	FILTER(MECH),A/C	5230A20047A	5230A20047A	
733010	PLATE	3301A10002A	3301A10002A	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20077U	6711A20073C	
266090	H.V ASSEMBLY	6609A10005A	6609A10005A	



LOCATION No	DESCRIPTION	PART	PART No.		
LOCATION No.	DESCRIPTION	LRNN096SPM0	LRNV092SPD0	REMARK	
131410	CHASSIS ASSEMBLY	3141A20004F	3141A20004F		
135303	GRILLE,INLET	3530A10071D	3530A10071C		
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A20069D	3531A20069D		
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A20069E	3531A20069E		
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A20069L	3531A20069L		
135313	GRILLE ASSEMBLY,INLET	3531A20113A	3531A20113M		
135316	GRILLE ASSEMBLY,FRONT(INDOOR)	3531A10145S	3531A10296D		
135500	COVER	3550A20060A	3550A20060A		
135500	COVER	3550A20123A	3550A20123A		
135500	COVER	3550A20124A	3550A20124A		
135515	COVER ASSY,TOP(INDOOR)	3551A20031A	3551A20031A		
144710	GEAR ASSEMBLY	4471A20001C	4471A20001C		
144710	GEAR ASSEMBLY	4471A20001D	4471A20001D		
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A		
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A		
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A		
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A		
147581	LOUVER,HORIZONTAL	4758A20014B	4758A20014B		
147581	LOUVER,HORIZONTAL	4758A20014B	4758A20014B		
147581	LOUVER,HORIZONTAL	4758A20014B	4758A20014B		
152312	FILTER ASSEMBLY,AIR CLEANER	5231A20005A	5231A20005A		
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A20270N	4995A20270P		
263230	THERMISTOR ASSEMBLY	6323A20004J	6323A20004J		
263230	THERMISTOR ASSEMBLY	6323A20004J	6323A20004J		
263230	THERMISTOR ASSEMBLY	6323AQ3226W	6323AQ3226W		
267110	REMOTE CONTROLLER ASSEMBLY	6711A20039P	6711A20073L		
268712	PWB(PCB) ASSEMBLY, DISPLAY	6871A20238B	6871A20238B		
268713	PWB(PCB) ASSEMBLY,SUB	6871A30027A	6871A30027A		
268714	PWB(PCB) ASSEMBLY,MAIN(DC)	6871A20676J	6871A20676T		
330870	DRAIN PAN ASSEMBLY	3087A30004A	3087A30004A		
346810	MOTOR ASSEMBLY,INDOOR	4681A20047B	4681A20047B		
352090	AIR GUIDE	5238A10007A	5238A10007A		
352115	TUBE ASSEMBLY, EXPANSION	5211A11041A	5211A11041A		
352116	TUBE ASSEMBLY, EVAPORATOR OUT	5211A11042A	5211A11042A		
352150	HOSE ASSEMBLY, DRAIN	5251AR1222R	5251AR1222R		
359012	FAN,TURBO	5900A00003A	5900A00003A		

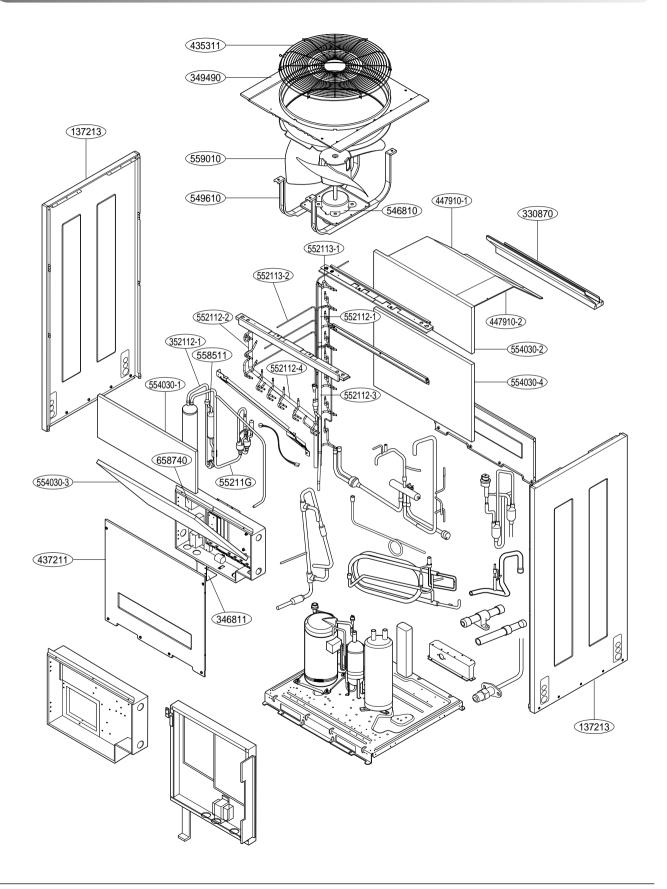


LOCATION	DESCRIPTION	PART NO.					REMARK
NO.	DESCRIPTION	LRNV126SVM0	LRNN126SVM0	LRNV186SVM0	LRNN186SVM0	LRNN182SVM0	
135303	GRILLE,INLET	3530A10116D	3530A10116D	3530A10116D	3530A10116D	3530A10116D	
135303	GRILLE,INLET	3530A10117D	3530A10117D	3530A10117D	3530A10117D	3530A10117D	
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A20124B	3531A20124B	3531A20124B	3531A20124B	3531A20124B	
135311	GRILLE ASSEMBLY, DISCHARGE (INDOOR)	3531A20125B	3531A20125B	3531A20125B	3531A20125B	3531A20125B	
135316	GRILLE ASSEMBLY,FRONT(INDOOR)	3531A11018E	3531A10153Z	3531A11018E	3531A10153Z	3531A10153Z	
135500	COVER	3550A20060A	3550A20060A	3550A20060A	3550A20060A	3550A20060A	
135500	COVER	3550A20120B	3550A20120B	3550A20120B	3550A20120B	3550A20120B	
135500	COVER	3550A20121B	3550A20121B	3550A20121B	3550A20121B	3550A20121B	
146811	MOTOR ASSEMBLY,STEP	4681A20055A	4681A20055A	4681A20055A	4681A20055A	4681A20055A	
146811	MOTOR ASSEMBLY,STEP	4681A20055C	4681A20055C	4681A20055C	4681A20055C	4681A20055C	
147581	LOUVER,HORIZONTAL	4758A20033A	4758A20033A	4758A20033A	4758A20033A	4758A20033A	
147582	LOUVER,VERTICAL	4758A20034A	4758A20034A	4758A20034A	4758A20034A	4758A20034A	
152302	FILTER(MECH),A/C	5230A10006B	5230A10006B	5230A10006B	5230A10006B	5230A10006B	
237900	WINDOW,DISPLAY	3790A20035A	3790A20035A	3790A20035A	3790A20035A	3790A20035A	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10098N	4995A10098Q	4995A10098P	4995A10098M	4995A10098M	
263230	THERMISTOR ASSEMBLY	6323A20004J	6323A20004J	6323A20004J	6323A20004J	6323A20004J	
263230	THERMISTOR ASSEMBLY	6323AQ3226V	6323AQ3226V	6323AQ3226V	6323AQ3226V	6323AQ3226V	
267110	REMOTE CONTROLLER ASSEMBLY	6711A20010A	6711A20039P	6711A20010A	6711A20073N	6711A20073N	
268712	PWB(PCB) ASSEMBLY, DISPLAY	6871A20250A	6871A20250A	6871A20250A	6871A20250A	6871A20250A	
268713	PWB(PCB) ASSEMBLY,SUB	6871A30029A	6871A30029A	6871A30029A	6871A30029A	6871A30029A	
268714	PWB(PCB) ASSEMBLY,MAIN(DC)	6871A20676Q	6871A20676L	6871A20676R	6871A20676M	6871A20676M	
330870	DRAIN PAN ASSEMBLY	3087A20013A	3087A20013A	3087A20013A	3087A20013A	3087A20013A	
346810	MOTOR ASSEMBLY,INDOOR	4681A20047C	4681A20047C	4681A20047C	4681A20047C	4681A20047C	
346810	MOTOR ASSEMBLY,INDOOR	4681A20047D	4681A20047D	4681A20047D	4681A20047D	4681A20047D	
349490	ORIFICE ASSEMBLY	4949A20002A	4949A20002A	4949A20002A	4949A20002A	4949A20002A	
352115	TUBE ASSEMBLY, EVAPORATOR IN	5211A10423A	5211A10423A	5211A10423A	5211A10423A	5211A10423A	
352116	TUBE ASSEMBLY, EVAPORATOR OUT	5211A20301H	5211A20301H	5211A20301H	5211A20301H	5211A20301H	
352150	HOSE ASSEMBLY, DRAIN	5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	5251AR1222R	
352380	AIR GUIDE	5238A10009A	5238A10009A	5238A10009A	5238A10009A	5238A10009A	
352380	AIR GUIDE	5238A10010A	5238A10010A	5238A10010A	5238A10010A	5238A10010A	
354210	EVAPORATOR ASSEMBLY,FIRST	5421A20104A	5421A20104B	5421A20104A	5421A20104B	5421A20104A	
359012	FAN,TURBO	5900A00004A	5900A00004A	5900A00004A	5900A00004A	5900A00004A	
359012	FAN,TURBO	5900A00005A	5900A00005A	5900A00005A	5900A00005A	5900A00005A	

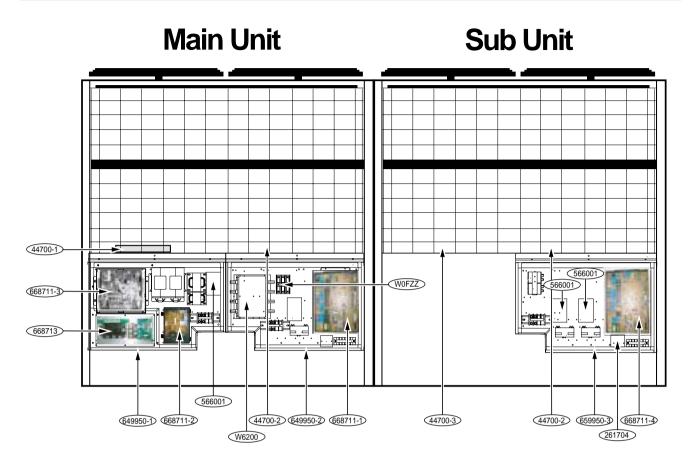


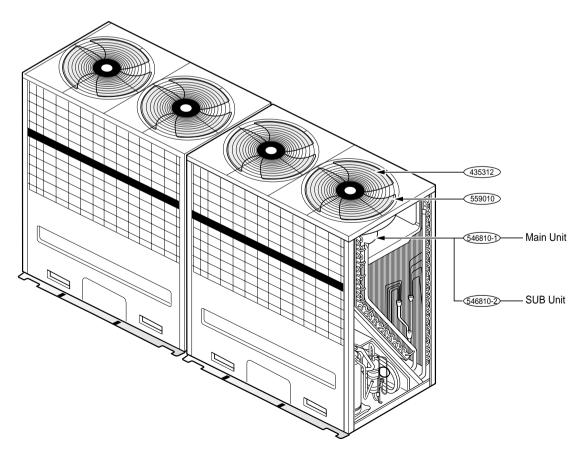
		PART NO.		
LOCATION No.	DESCRIPTION	LRNN186VBA0	LRNN246VBA0	REMARKS
132100	FRAME	3022	2AP1283B	
135314	GRILLE ASSEMBLY,INLET SUB	523	7AP2817B	
135316	GRILLE ASSEMBLY, DIFFUSER (INDOOR)	353	1A10272B	
137211	PANEL ASSEMBLY,FRONT(INDOOR)	3720	DAP2767P	
146811	MOTOR ASSEMBLY,STEP	4681	1AR2727G	
152302	FILTER(MECH),A/C	5230	OAP7093A	
159901	VANE ASSY	599 <sup>-</sup>	1AP7334C	
159911	VANE ASSY,HORIZONTAL	599 <sup>-</sup>	1AP2867B	
166000	SWITCH,PUSH	6600	0AP2059B	
166000	SWITCH,PUSH	6600	OAP2059B	
235450	DISPLAY ASSEMBLY (MECH)	354	5AP7224B	
237900	WINDOW,DISPLAY	3790	OAP7080A	
249951	CONTROL BOX ASSEMBLY,INDOOR	4995A10107E	4995A10107F	
263230	THERMISTOR ASSEMBLY(ROOM)	6323	3A30004D	
263230	THERMISTOR ASSEMBLY(PIPE-IN)	6323	3A30002C	
263230	THERMISTOR ASSEMBLY(PIPE-OUT)	6323	3AQ3226Y	
267110	REMOTE CONTROLLER ASSEMBLY	671	1A10002A	
268712	PWB(PCB) ASSY,DISPLAY	687′	1AQ3263A	
268716	PWB(PCB) ASSEMBLY,MAIN	6871A20701D	6871A20701F	
330870	DRAIN PAN ASSEMBLY	3087	7AP7233A	
342800	BEARING	3⊦	102821B	
346810	MOTOR ASSEMBLY,INDOOR	4681AP2306M	4681AP2306N	
352115	TUBE ASSEMBLY, EVAPORATOR IN	521	1A22147A	
35211A	TUBE ASSEMBLY, SUCTION INDOOR	521	1AP2813J	
352150	HOSE ASSY,DRAIN	525 <sup>2</sup>	1AP2460B	
354210	EVAPORATOR ASSEMBLY,FIRST	542	1AP2812A	
359010	FAN ASSY,CROSS FLOW	590 <sup>-</sup>	1AR2351E	
733010	PLATE ASSEMBLY,INSTALL(R)	3301AP7519A		
733010	PLATE ASSEMBLY,INSTALL(L)	3301AP7519B		
W0CZZ	CAPACITOR, DRAWING	3H00671A		
152380	AIR GUIDE	5238AP2337A		
147901	BARRIER, INDOOR(L)	4791A20042A		
147901	BARRIER, INDOOR(R)	479	1A20042B	
137213	PANEL ASSEMBLY, SIDE	372	1AP2566A	
137213	PANEL ASSEMBLY, SIDE	372	1AP2570A	

### LRUV / LTUN5(5~8HP) Series (Multi V)

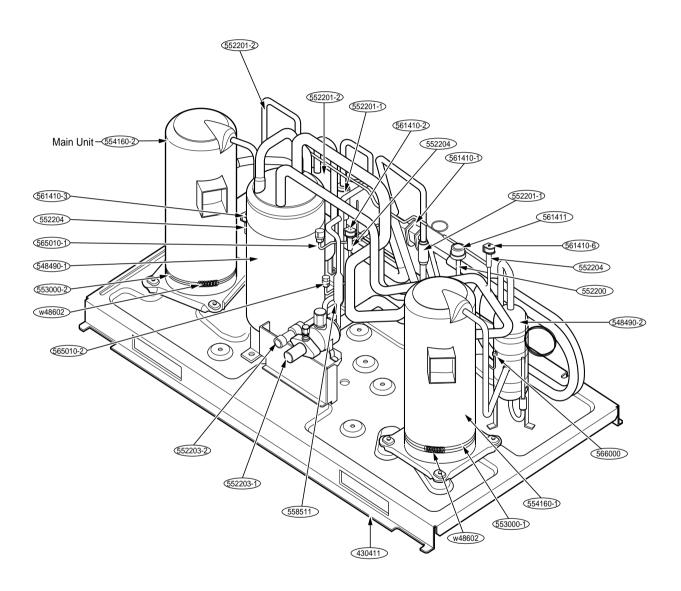


LOCATION NO.	DESCRIPTION	PA	PART NO.		
LOCATION NO.		LRUN508T0	LRUN608T0	REMARK	
554160	COMPRESSOR SET	2520UNGV1AA	2520UNGV1AA		
548490	ACCUMULATOR	4848A20001D	4848A20001D		
553000	HEATER, SUMP	5300A20008A	5300A20008A		
352111	TUBE ASSEMBLY, CONNECTOR	5211A22131A	5211A22131A		
552201	VALVE, CHECK	3A01020D	3A01020D		
552203	VALVE, SERVICE	5220A90012H	5220A90012H		
552203	VALVE, SERVICE	5220A90012F	5220A90012G		
566000	SWITCH, PRESSURE	6600AG3057A	6600AG3057A		
552200	VALVE, EXPANSION BODY	5220A90001B	5220A90001B		
552204	VALVE, SOLENOID	5220A90002A	5220A90002A		
552204	VALVE, SOLENOID	5220A90008B	5220A90008B		
552202	VALVE, REVERSING	5220AP3777C	5220AP3777C		
159910	VALVE ASSEMBLY	5221A20004P	5221A20004P		
558511	DRIER ASSEMBLY	5851A20002A	5851A20002A		
565010	SENSOR ASSEMBLY	6501A20004A	6501A20004A		
565010	SENSOR ASSEMBLY	6501A20004B	6501A20004B		
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	6141A20009J		
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	6141A10001H		
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	6141A10001G		
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	6141A20010F		
263230	THERMISTOR ASSEMBLY	6323A20009B	6323A20009B		
263230	THERMISTOR ASSEMBLY	6323A20009C	6323A20009C		
263230	THERMISTOR ASSEMBLY	6323A20009G	6323A20009G		
546810	MOTOR ASSEMBLY, OUTDOOR	4681A10029A	4681A10029A		
559010	FAN ASSEMBLY PROPELLER	5901A10029A	5901A10029A		
649950	CONTROL BOX ASSEMBLY, OUTDOOR	4995A10109C	4995A10109C		
668711	PWB(PCB)ASSEMBLY, MAIN(OUTDOOR)	6871A10076C	6871A10076C		
668713	PWB(PCB)ASSEMBLY, SUB	6871A20133G	6871A20133G		
668711	PWB(PCB)ASSEMBLY, MAIN(OUTDOOR)	6871A10145A	6871A10145A		
668711	PWB(PCB)ASSEMBLY, MAIN(OUTDOOR)	6871A10146A	6871A10146A		
566001	SWITCH, MAGNET	6600B000048	6600B000048		
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	4681A21001A		
649950	CONTROL BOX ASSEMBLY, OUTDOOR	4995A10171G	4995A10171L		
668711	PWB(PCB)ASSEMBLY, MAIN(OUTDOOR)	6871A30036L	6871A30036P		
261704	TRANSFORMER, POWER	6170A20016D	6170A20016D		
W6200	FILTER(CIRC), EMC	6200J000057	6200J000057		
W0FZZ	FUSE, DRAWING	0FZZA90001F	0FZZA90001F		





#### LRUV (10~14HP) Series (Multi V)



## LRUV100BT0

LOCATION NO	DESCRIPTION	PART NO.	REMARK
LOCATION NO.	DESCRIPTION	LRUV100BT0	KEWIAKK
554160	COMPRESSOR SET	2520UNCV2BA	
554160	COMPRESSOR SET	2520UNER2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
W48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552204	VALVE,SOLENOID	5220A90008B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10164A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30076F	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10165A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10206A	
261704	TRANSFORMER,POWER	6170A20016A	
566001	SWITCH,MAGNET	6600B000066	
W0FZZ	FUSE,DRAWING	0FZZA90001L	
W6200	FILTER(CIRC),EMC	6200J000035	

# LRUV1008T0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
		LRUV1008T0	
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552204	VALVE,SOLENOID	5220A90008B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135R	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053B	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

# LRUV1009T0

LOCATION NO	DESCRIPTION	PART NO.	REMARK
LOCATION NO.	DESCRIPTION	LRUV1009T0	REWARK
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEU1CA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552204	VALVE,SOLENOID	5220A90008B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY,SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135M	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053A	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

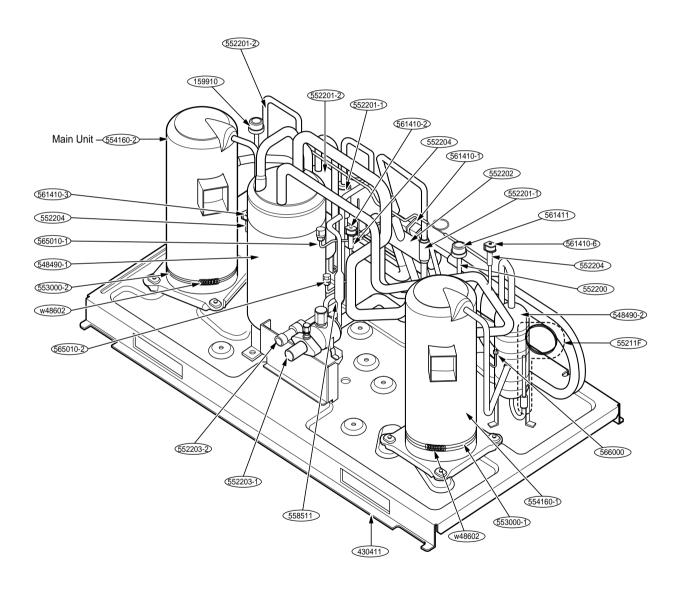
### LRUV120BT0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
LOCATION NO.		LRUV120BT0	KEWIAKK
554160	COMPRESSOR SET	2520UNCV2BA	
554160	COMPRESSOR SET	2520UNER2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
566000	SWITCH,PRESSURE	6600AG3057A	
552201	VALVE,CHECK	3A01020L	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
566000	SWITCH,PRESSURE	6600AG3057A	
552201	VALVE,CHECK	3A01020L	
552204	VALVE,SOLENOID	5220A90002A	
552204	VALVE, SOLENOID	5220A90008B	
552204	VALVE, SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10164A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076F	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY, MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
	CONTROL BOX ASSEMBLY,OUTDOOR		
649950 668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	4995A10165B 6871A30053J	
261704	TRANSFORMER, POWER	6170A20016A	
566001	SWITCH,MAGNET	6600B000066	
W0FZZ	FUSE,DRAWING	0FZZA90001L	
W6200	FILTER(CIRC),EMC	6200J000035	

# LRUV120BT0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
554160	COMPRESSOR SET	<b>LRUV1408T0</b> 2520UNGV1AA	
554160	COMPRESSOR SET	2520UNGV TAA 2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
	TUBE ASSEMBLY,CONNECTOR		
352111		5211A11040A	
553000	HEATER, SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY, SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552204	VALVE,SOLENOID	5220A90008B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135U	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053U	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

### LRUN (8~14HP) Series (Multi V)



### LRUN808T0

LOCATION NO.	DESCRIPTION	PART NO. LRUN808T0	REMARK
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY, SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY, SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135N	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053L	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

## LRUN1008T0

LOCATION NO.	DESCRIPTION	PART NO. LRUN1008T0	REMARK
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY, CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY, SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY,SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135K	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053C	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

# LRUN1009T0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
050444	TURE ACCEMBLY COMMECTOR	LRUN1009T0	
352111	TUBE ASSEMBLY, CONNECTOR	5211A11040A	
430411	BASE ASSEMBLY, WELD[OUTDOOR]	3041A10048A	
435312	GRILLE ASSEMBLY, DISCHARGE (OUTDOOR)	3531A20211B	
44700	BARRIER,OUTDOOR	4790A20052A	
44700	BARRIER,OUTDOOR	4790A20052B	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552201	VALVE,CHECK	3A01020D	
552201	VALVE,CHECK	3A01020L	
552202	VALVE,REVERSING	5220A20039A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	5220A90012A	
552204	VALVE,SOLENOID	5220A90002A	
552204	VALVE,SOLENOID	5220A90002A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
554160	COMPRESSOR SET	2520UNEU1CA	
554160	COMPRESSOR SET	2520UNGV1AA	
558511	DRIER ASSEMBLY	5851A20002A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
566000	SWITCH,PRESSURE	6600AG3057A	
566000	SWITCH,PRESSURE	6600AG3057A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135E	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30036D	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
w48602	CLAMP,SPRING	4H01930A	
552204	VALVE,SOLENOID	5220A90008B	
55211G	TUBE ASSEMBLY, EXPANSION	5211A10438A	

## LRUN100BT0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
		LRUN100BT0	
554160	COMPRESSOR SET	2520UNCV2CA	
554160	COMPRESSOR SET	2520UNER2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY, SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY, PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10164A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30076F	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10165A	
668711	PWB(PCB) ASSEMBLY, MAIN(OUTDOOR)	6871A10206A	
261704	TRANSFORMER, POWER	6170A20016A	
566001	SWITCH,MAGNET	6600B000066	
W0FZZ	FUSE,DRAWING	0FZZA90001L	
W6200	FILTER(CIRC),EMC	6200J000035	

## LRUN1208T0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
		LRUN1208T0	
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY, CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
566000	SWITCH,PRESSURE	6600AG3057A	
552201	VALVE,CHECK	3A01020L	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
566000	SWITCH,PRESSURE	6600AG3057A	
552201	VALVE,CHECK	3A01020L	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY, SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
566001	SWITCH,MAGNET	6600B000048	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135T	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053W	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	
VVO∠UU	FILTER(UIRU),EIVIU	02003880090	

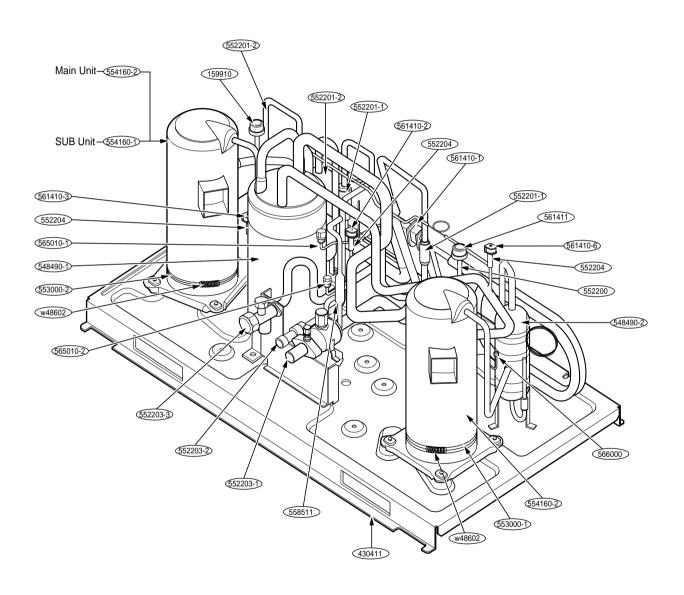
### LRUN120BT0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
		LRUN120BT0	TC-WAIN
554160	COMPRESSOR SET	2520UNCV2CA	
554160	COMPRESSOR SET	2520UNER2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY, SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY, PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10164A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30076F	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10165B	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053J	
261704	TRANSFORMER, POWER	6170A20016A	
566001	SWITCH,MAGNET	6600B000066	
W0FZZ	FUSE,DRAWING	0FZZA90001L	
W6200	FILTER(CIRC),EMC	6200J000035	

# LRUN1408T0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
		LRUN1408T0	
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
566000	SWITCH,PRESSURE	6600AG3057A	
552201	VALVE,CHECK	3A01020L	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
566000	SWITCH,PRESSURE	6600AG3057A	
552201	VALVE,CHECK	3A01020L	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135U	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053U	
261704	TRANSFORMER, POWER	6170A20016D	
	SWITCH,MAGNET	6600B000048	
566001	*		
W0FZZ	FUSE, DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

#### LRUV(C) (16~40HP) Series (Multi V Plus)



# LRUV1008TS0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
LOCATION NO.	DESCRIPTION	LRUV1008TS0	KEWAKK
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552204	VALVE,SOLENOID	5220A90008B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10153A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30036E	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

#### LRUV1008TR0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
		LRUV1008TR0	KEMAKK
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY, SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY, SOLENOIDE	5211A11024A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552204	VALVE,SOLENOID	5220A90008B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135Q	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053F	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

# LRUV1408TR0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
LOCATION NO.	DESCRIPTION	LRUV1408TR0	KEWIAKK
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY, CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552204	VALVE,SOLENOID	5220A90008B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10135P	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053V	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

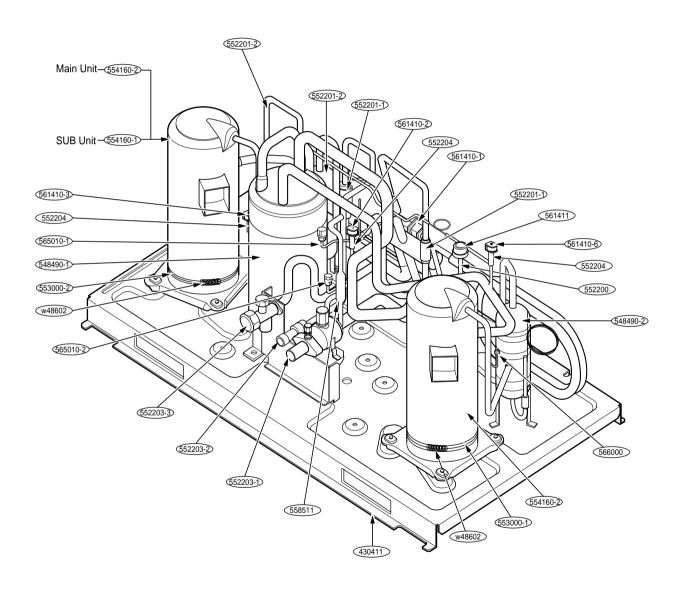
# LRUC1008TS0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
LOCATION NO.		LRUC1008TS0	KEWIAKK
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552204	VALVE,SOLENOID	5220A90008B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10014H	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10154A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30037E	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	

#### LRUC1008TR0

LOCATIONING	DECORPTION	PART NO.	DEMARK
LOCATION NO.	DESCRIPTION	LRUC1008TR0	REMARK
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY, CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
552204	VALVE,SOLENOID	5220A90008B	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10014H	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10154C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30037K	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	

#### LRUN(H) (16~40HP) Series (Multi V Plus)



# LRUN1008TS0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
LOCATION NO.	DESCRIPTION	LRUN1008TS0	REWARK
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY,SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10153A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30036E	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

#### LRUN1208TS0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
LOCATION NO.	DESCRIPTION	LRUN1208TS0	REWARK
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY, SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY, PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30076C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10145A	
668713	PWB(PCB) ASSEMBLY,SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10153B	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30036H	
261704	TRANSFORMER, POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	

# LRUN1208TR0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
554160	COMPRESSOR SET	<b>LRUN1208TR0</b> 2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY, CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008A	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY, SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY, SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE, NEVEROING	5220A90008B	
552204	VALVE, SOLENOID  VALVE, SOLENOID	5220A90000B	
552200	VALVE, SOLENOID  VALVE, EXPANSION BODY	5220A90002A 5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004A	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20010F	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
263230	THERMISTOR ASSEMBLY	6323A20009B	
	THERMISTOR ASSEMBLY	6323A20009B	
263230 263230		6323A20009C	
546810	THERMISTOR ASSEMBLY MOTOR ASSEMBLY,OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY, PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY, MAIN(OUTDOOR)	6871A10076C	
668713	PWB(PCB) ASSEMBLY, SUB	6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
	, , , , , , , , , , , , , , , , , , , ,		
346811 649950	MOTOR ASSEMBLY,SINGLE  CONTROL BOX ASSEMBLY,OUTDOOR	4681A21001A 4995A10153C	
	·		
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053R	
261704	TRANSFORMER, POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE, DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

# LRUN1408TR0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
		LRUN1408TR0	NEWANN
554160	COMPRESSOR SET	2520UNGV1AA	
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY, SOLENOID	6141A10001G	
561410	COIL ASSEMBLY, SOLENOID	6141A10001H	
561410	COIL ASSEMBLY, SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY, OUTDOOR	4681A10029A	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10109C	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10076C	
668711	PWB(PCB) ASSEMBLY, MAIN(OUTDOOR)	6871A10145A	
	PWB(PCB) ASSEMBLY, SUB		
668713		6871A20133G	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A10146A	
346811	MOTOR ASSEMBLY, SINGLE	4681A21001A	
649950	CONTROL BOX ASSEMBLY, OUTDOOR	4995A10153D	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30053R	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	
W0FZZ	FUSE,DRAWING	0FZZA90001F	
W6200	FILTER(CIRC),EMC	6200JB8009U	

# LRUH1008TS0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
LOCATION NO.	DESCRIPTION	LRUH1008TS0	REWARK
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY, SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY,REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10014H	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10154A	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30037E	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	

# LRUH1008TR0

LOCATION NO.	DESCRIPTION	PART NO.	REMARK
LOCATION NO.	DESCRIPTION	LRUH1008TR0	KEWIAKK
554160	COMPRESSOR SET	2520UNEY2AA	
548490	ACCUMULATOR ASSEMBLY(MECH)	4849A10038A	
352111	TUBE ASSEMBLY,CONNECTOR	5211A11040A	
553000	HEATER,SUMP	5300A20008A	
553000	HEATER,SUMP	5300A20008B	
w48602	CLAMP,SPRING	4H01930A	
552203	VALVE,SERVICE	5220A90012A	
552203	VALVE,SERVICE	5220A20042A	
552203	VALVE,SERVICE	2A00499M	
55211F	TUBE ASSEMBLY, SOLENOIDE	5211A11023A	
552201	VALVE,CHECK	3A01020L	
566000	SWITCH,PRESSURE	6600AG3057A	
55211F	TUBE ASSEMBLY,SOLENOIDE	5211A11024A	
552202	VALVE,REVERSING	5220A20039A	
552204	VALVE,SOLENOID	5220A90008B	
552204	VALVE,SOLENOID	5220A90002A	
552200	VALVE,EXPANSION BODY	5220A90001B	
159910	VALVE ASSEMBLY	5221A20004P	
552201	VALVE,CHECK	3A01020D	
558511	DRIER ASSEMBLY	5851A20002A	
565010	SENSOR ASSEMBLY	6501A20004A	
565010	SENSOR ASSEMBLY	6501A20004B	
561410	COIL ASSEMBLY, REVERSING VALVE	6141A20010F	
561411	COIL ASSEMBLY, EXPANSION	6141A20009J	
561410	COIL ASSEMBLY,SOLENOID	6141A10001G	
561410	COIL ASSEMBLY,SOLENOID	6141A10001H	
561410	COIL ASSEMBLY,SOLENOID	6141A10001J	
263230	THERMISTOR ASSEMBLY	6323A20009B	
263230	THERMISTOR ASSEMBLY	6323A20009C	
263230	THERMISTOR ASSEMBLY	6323A20009D	
546810	MOTOR ASSEMBLY,OUTDOOR	4681A10014H	
559010	FAN ASSEMBLY,PROPELLER	5901A10029A	
649950	CONTROL BOX ASSEMBLY,OUTDOOR	4995A10154B	
668711	PWB(PCB) ASSEMBLY,MAIN(OUTDOOR)	6871A30037K	
261704	TRANSFORMER,POWER	6170A20016D	
566001	SWITCH,MAGNET	6600B000048	



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